REPORT RESUMES

ED 002 834 24

POPULATION TRENDS AND EDUCATIONAL CHANGE IN THE STATE OF WASHINGTON.

BY- SCHMID, CALVIN F. MILLER, VINCENT A.
WASHINGTON UNIV., SEATTLE
REPORT NUMBER CRP-309 PUB DATE 60
WASHINGTON STATE CENSUS BOARD, SEATTLE
EDRS PRICE MF-$0.27 HC-$6.36 159P.

DESCRIPTORS- *POPULATION TRENDS, SOCIAL CHANGES, *SOCIOECONOMIC INFLUENCES, *EDUCATIONAL CHANGE, *EDUCATIONAL OBJECTIVES, ENROLLMENT TRENDS, DEMOGRAPHY, ECOLOGICAL FACTORS, *COMMUNITY INFLUENCE, EDUCATIONAL PROBLEMS, SCHOOL ORGANIZATION, SCHOOL ADMINISTRATION, FACTOR ANALYSIS, SCHOOL ACTIVITIES, EDUCATIONAL FINANCE, EDUCATIONAL FACILITIES, SEATTLE, WASHINGTON

THE IMPACT OF SOCIAL, ECONOMIC, AND POPULATION CHANGES IN THE STATE OF WASHINGTON WERE ANALYZED TO DETERMINE RELATIONSHIPS TO AND INFLUENCES UPON PUBLIC EDUCATIONAL TRENDS, ESPECIALLY WITH RESPECT TO PHYSICAL FACILITIES, CURRICULUMS, STAFF, FINANCES, AND ADMINISTRATION. FOR THE PURPOSE OF THIS STUDY, THE STATE WAS GROUPED INTO LOGICAL AND RELATIVELY HOMEGENEOUS TERRITORIAL COMPONENTS WHERE THE VARIOUS FACTORS IN EDUCATIONAL AND SCHOOL CHANGE WERE INVESTIGATED AS FUNCTIONAL RESPONSES TO OVERALL COMMUNITY NEEDS AND CHANGES. DATA WERE OBTAINED FROM CENSUS TRACT PUBLICATIONS AND TABULATIONS, PRIVATE AND PAROCHIAL REPORTS, OFFICIAL RECORDS, FILES, INTERVIEWS, AND OBSERVATION. EXTENSIVE USE WAS MADE OF GRAPHIC TECHNIQUES IN THE REPORT, FACILITATING AND SIMPLIFYING THE NUMEROUS STATISTICAL PRESENTATIONS. STUDY CONCLUSIONS PROVIDED AN UNDERSTANDING OF THE MORE SERIOUS PROBLEMS RELATING TO THE SCHOOLS IN THE STATE AND OF THE FORCES AND CONDITIONS PRODUCING THEM. (JH)

ED 002834

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFAR
Office of Education
This document has been reproduced exactly as received from
person or organization originating it. Points of view or opinic
stated do not necessarily represent official Office of Educati
position or policy.

POPULATION TRENDS
AND
EDUCATIONAL CHANGE
IN THE
STATE OF WASHINGTON

BY

CALVIN F. SCHMID
PROFESSOR OF SOCIOLOGY AND DIRECTOR OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
EXECUTIVE SECRETARY, WASHINGTON STATE CENSUS BOARD

AND

VINCENT A. MILLER
RESEARCH SUPERVISOR, OFFICE OF POPULATION RESEARCH
AND WASHINGTON STATE CENSUS BOARD

The research reported herein was performed pursuant to a contract between the University of Washington and the United States Office of Education, Department of Health, Education and Welfare.

Published by
WASHINGTON STATE CENSUS BOARD
SEATTLE, 1960

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

WASHINGTON STATE CENSUS BOARD

George A. Lundberg, Chairman

Wallis Beasley Richard Taylor

Calvin F. Schmid, Executive Secretary

PREFACE

This study represents an application of techniques and data from demography and human ecology to an analysis of basic problems relating to the public school system. The special contributions of demography and human ecology to the analysis of public education include an understanding of such factors as the past and future growth, distribution, composition and mobility of population, fertility trends, income differentials, basic differences in economic activities, technological change (especially in transportation and communication), urbanization, suburban trends, intra-state migration and racial segregation. Although this report is perhaps the most complete and systematic of its kind, restrictions of time and resources have limited its scope. Obviously, there are many gaps, and parts of the study are extremely compressed.

In the preparation of this monograph, the primary purpose has been to produce a work that will be of direct value and assistance to school administrators, governmental officials and others concerned with educational problems. The professional social scientist also may find this study of interest.

There is a greater need today than ever before for accurate, systematic and detailed information concerning public education. The more serious problems relating to schools cannot be dealt with effectively without a wider and deeper understanding of the forces and conditions producing them. This goal can be attained only by thorough and scientific study.

In order to facilitate and to simplify presentation, and at the same time conserve space, extensive use has been made of graphic techniques. Well-constructed graphs make it possible to relate a complete, coherent, balanced and accurate account in a minimum of space. All but the most essential statistical tabulations and other source materials had to be omitted, since an additional, considerably larger volume would have been required in order to include a major portion of these data.

This study was made possible by a special grant from the United States Office of Education through a contract with the University of Washington. The Washington State Census Board also provided full cooperation and valuable assistance in this undertaking. Chapter 6 was prepared by George C. Myers and Chapter 7, by Warren E. Kalbach and John R. Walker, as parts of master's and doctor's theses. Baha Abu-Laban participated as a collaborator on Chapters 8 and 9. In addition, valuable editorial, statistical and drafting assistance was rendered by Michael Berg, Jerry H. Durham, Randall Gloege, Wayne W. McVey, Jr., Wilfred Marston, D. Peter Mazur, Robert E. Muzzy, Frances P. Owen, Sharon Repanich, Janis Shull, Kiyoshi Tagashira, Carol Thrailkill, Judith L. Turner and Kay C. Williams.

Although it is impossible to acknowledge individually every education specialist and official who has assisted with this undertaking, the following persons deserve special mention: Ernest W. Campbell, J. Bernard Chichester, Harold Jeffery, Donald Nylen, Kenneth E. Selby, Byron Smith and the principals and teachers in the Seattle Public School District; L. M. Dimmitt and Donald L. Kruzner of the King County Public Schools; David B. Dekker and George D. Strayer of the University of Washington; Lloyd J. Andrews, Elmer L. Breckner, Lloyd J. Elias, George Glenn and Tillman Peterson of the Washington State Office of Public Instruction; Walter Adamson, David L. Clark, Herbert S. Conrad and Roy M. Hall of the United States Office of Education.

Calvin F. Schmid
Vincent A. Miller

Seattle, Washington
July 15, 1960

CONTENTS

CHAPTER PAGE

PREFACE ii

1 INTRODUCTION 1

Basic Research Problem 1
Background of Problem 1
Previous Research 2
Hypotheses 3
Data and Procedures 3
Summary of Topics 4

2 GEOGRAPHIC AND SOCIO-ECONOMIC DIFFERENTIALS AND EDUCATIONAL CHANGE 5

Territorial Subdivisions of the State 5
Indices of General Cultural Level 8
Educational Status of the Adult Population. 8
Proportion of the Population Enrolled in School 11
Graduation Trends in Elementary and Secondary Schools 13
Marital Status of the Adult Population 15
Income of Families and Unrelated Individuals 17
Labor Force 17
Differentials in Economic Activity: 1939 and 1954 21
Trends in Economic Activity and Education: 1939 to 1954 . . . 21
Summary 24

CHAPTER PAGE

3 TRENDS IN POPULATION DISTRIBUTION AND EDUCATIONAL CHANGE 26

Growth of Population 26
Enrollment Growth: 1900 to 1957 27
Differential Trends in Decennial Population Growth: 1900 to 1960 27
Differentials in Population Distribution: 1900 to 1960 31
Population Density: 1900 to 1960 32
Differential Decennial Educational Change: 1900 to 1957 33
Differential Population and Educational Change: 1900 to 1957 . . 37
Urbanization Trends and Educational Change 40
Summary 44

4 MIGRATION, FERTILITY AND EDUCATIONAL CHANGE . . . 45

Fertility and Mortality 45
Migration 48
Population Change 48
Educational Change 53
Geographical Distribution of Enrollment 62
Summary 63

5 ADMINISTRATIVE ADJUSTMENT OF SCHOOLS TO CHANGE . . 64

Historical Development of School District Reorganization . . . 64
Reorganization and Enrollment Trends,
Sub-Areas of the State: 1900-1957 65
Pupil-Teacher Ratio: 1900-1950 71
Mean Annual Salary of Teachers 73
Summary 75

6 IMPACT OF DEMOGRAPHIC AND ECOLOGICAL CHANGE ON PUBLIC SCHOOLS IN THE SEATTLE METROPOLITAN AREA 76

Population Growth and Redistribution 76
Consequences of Population Growth and Redistribution
for Educational Institutions 78
Summary 84

CHAPTER PAGE

7 RESIDENTIAL MOBILITY AND SCHOOL ADJUSTMENT AMONG JUNIOR AND SENIOR HIGH SCHOOL PUPILS 85

Method and Sample 85
Residential Mobility 86
Residential Mobility and Family Characteristics 88
Mobility and Pupil Adjustment 89
Summary 94

8 IMPACT OF MINORITY GROUPS ON SEATTLE PUBLIC SCHOOLS 96

Trends in the Minority Racial Groups in Seattle 96
Trends and Residential Patterning of Minority Racial Groups 100
Ethnic Patterns in School Attendance Areas 105
Teaching Staff by Ethnic Background and Type of School 114
Survey and Evaluation of Problems, Elementary Schools in Central Area of City 118
Recommendations for Alleviating Problems 121
Summary 122

9 ECOLOGICAL ANALYSIS OF JUNIOR COLLEGE ENROLLMENT. 123

General Characteristics of Junior College Enrollment 123
Location of High School of Graduation, Students Enrolled in Each Junior College 128
Summary 136

10 TRENDS IN HIGHER EDUCATION 137

Comparative Enrollments 138
Historical Trends in Enrollment 143
Future Trends in Enrollment 145
Enrollment Trends by Class 146
Enrollment by Residence 147
Impact of Changing Administrative Policies on Enrollment Forecasts 148
Summary 149

CHAPTER 1

INTRODUCTION

During the relatively brief span of time since 1889, when Washington became a state, the public educational system has undergone spectacular changes. Where formerly there were comparatively few, small, scattered school districts created to provide only basic educational services for less than 50,000 children, there now are highly organized school districts comprising all of the territory in the state, furnishing many varieties of educational activities to more than a half-million children.

During this same period, equally dramatic changes have occurred in the general cultural level, standards of living and other basic characteristics of the population. Also, from a nation-wide point of view, technological advances have had unprecedented influence on economic activities, transportation patterns and other factors entering into residential mobility and growth and distribution of population.

BASIC RESEARCH PROBLEM

The primary purpose of this research is to analyze the impact of certain social, economic and demographic factors on the public schools in the state of Washington. Changes of this kind have far-reaching influence on educational institutions, especially with respect to physical facilities, curricula, staff, finances and administration. Changes parallel to those taking place in the state of Washington also have occurred to a greater or lesser degree in other parts of the country. It is reasonable to assume that the findings of this study will possess significance and utility not only for the state of Washington, but also for the country as a whole.

BACKGROUND OF PROBLEM

The population of the state of Washington is distributed very disproportionately among it's thirty-nine counties. The 19 counties west of the Cascade Mountains comprise about one-third of the land area in the state, but contain more than two-thirds of the state's population, including two of the three large population centers in the state — Seattle and Tacoma — and a majority of the larger cities and towns. However, recent advances in land reclamation and construction of large dams for hydroelectric and irrigation purposes have resulted in significant population changes in Eastern Washington.

One outstanding feature of population change in recent years is the rapid increase in residential mobility, both within local areas as well as between geographical regions. These mobility patterns have developed to a greater or lesser degree in all parts of the United States. However, some places and sections of the country are chosen as destination by many more migrants than others, so that net population change due to residential mobility has led to marked differentials in population growth and decline. The Western part of the United States has registered consistently larger annual net population gain from migration than other parts of the country. The state of Washington has participated in this trend to a significant degree.

Another important feature of recent population change is the great increase in births. This phenomenon is taking place in all parts of the country, with rural and urban fertility differences tending to become smaller.

These impressive demographic trends have been accompanied by equally significant area changes in population density and distribution, as well as changes in living and work patterns. Residential mobility, urbanization, suburbanization, and expanding media of transportation, together with a rapidly growing economy, have combined to produce profound socio-economic change.

Educational change and problems emerging from unprecedented growth and shifts in population are by no means uniform throughout the state. Where there are areal differentials in population and other related changes, many of the problem conditions have become greatly intensified. This is particularly true in large, urbanized, industrialized population centers such as Seattle, as well as in certain other areas of rapid and extensive change, where hydroelectric power sites, irrigation projects, military bases and manufacturing plants have been located. For example, one of the largest industrial plants in the state of Washington is the Hanford plutonium works, which began operation during World War II in the Richland-Pasco-Kennewick area. Markedly different educational problems have developed in other parts of the state where population and associated factors have remained relatively static or have even declined.

Some of the specific problems concern the general administration of the schools in providing or developing adequate plant facilities, instructional staffs, financial support, transportation, special educational services, equal opportunity for quality instruction and curricular needs for local areas. Of prime importance in meeting these problems is a program for reorganization of school districts, devised to obtain the most effective local administrative districts.

PREVIOUS RESEARCH

A careful examination of the literature revealed no comprehensive studies bearing directly on the major problems covered in the present project. Relevant, but restricted, research touching on certain phases of this study, however, has yielded data as well as interpretive material. Where appropriate, occasional citations of other studies have been made.

HYPOTHESES

The general working hypothesis guiding this research is that differential social, economic and population change is functionally related to educational change.

More specifically, changes in educational institutions are hypothesized to be a function of trends in:

(1) Patterns of population growth and distribution.
(2) Residential mobility of population.
(3) Social and economic characteristics of the population.
(4) Fertility.
(5) Commercial, agricultural, industrial and other economic activity.

Furthermore, the size and complexity of problems and adjustments in educational institutions are hypothesized to be a function of the differential rapidity of increase or decrease in social, economic and population change.

Corollaries of these hypotheses appear in subsequent parts of this report in connection with more detailed discussion of the major topics.

DATA AND PROCEDURES

The basic data for this study consist of detailed tabulations of population, education and related statistics, classified by relatively small areas, which have been supplemented by interviews and direct observation. Wherever possible, detailed data were tabulated for various parts of the state of Washington for the period between 1900 and 1957. Some of these tabulations are annual, while others are quinquennial or decennial.

Population statistics for categories such as number of people, kind of residence area, occupation and level of completed education, were obtained from published and unpublished reports of the United States Bureau of the Census.

Education statistics covering such categories as instructional employees, enrollment, pupil transportation and school districts, were obtained from biennial reports and special tabulations of the Washington State Department of Public Instruction. Additional tabulations pertaining to data of this kind were transcribed from official records on file in the State Archives. Statewide data on boundaries of school districts were obtained from official records and maps in the files of the State Department of Public Instruction, supplemented by information obtained from county and municipal school superintendents.

Data on ethnic background of all pupils enrolled in the various public schools of Seattle were collected by actual enumeration, and information on special problems encountered by teachers and administrators was obtained by direct interview. Data on residential mobility and characteristics of pupils enrolled in the junior and senior high schools of Seattle were obtained by questionnaire on a sample basis.

Additional data on other related factors were secured, wherever available, from published sources, special transcripts, official records, files, interviews and observations.

Special control and evaluative techniques were used to insure comparability, reliability and accuracy of the data used in this study. Data collection instruments such as questionnaires and enumeration schedules were thoroughly pre-tested.

Many of the research techniques and methods included in this study have been developed by the demographer and human ecologist. Quantitative techniques were given special emphasis. For example, the following concepts and measures were utilized: (1) rates and ratios, (2) correlation, (3) time series analysis, (4) statistical estimation, (5) sampling, and (6) forecasting. A large portion of the data were processed by means of I. B. M. punch-card procedures and facilities. Extensive application was made of graphic techniques in the interpretation and presentation of data. A comparative technique that was widely applied throughout the study consisted of sub-dividing the entire state into logical and homogeneous territorial components as a basis for analyzing interrelationships between the ecological and demographic setting and educational trends.

SUMMARY OF TOPICS

The basic outline and content of this report may be summarized as follows: Chapter 2 contains a discussion of natural and cultural characteristics of various parts of the state. Chapter 3 presents an analysis of the relationships between differential growth and distribution of population and changes in education. Chapter 4 consists of an analysis of the components of population change, including the effects of migration on the schools. Chapter 5 is concerned with administrative problems in the school system in connection with demographic and ecological changes. Chapter 6 presents a detailed analysis of the centrifugal movement of population in the Seattle area, which typifies a change that is taking place in all large cities. Chapter 7 contains an analysis of the impact of residential mobility on the junior and senior high schools in the city of Seattle. The patterns and implications of the differential distribution of various ethnic groups upon the schools in the city of Seattle are presented in Chapter 8. Chapter 9 consists of a detailed presentation of junior college enrollment throughout the state, with primary emphasis on the extent of the territory which these institutions serve. Chapter 10 contains a discussion of college and university trends in the state, including estimates of future enrollment.

CHAPTER 2

GEOGRAPHIC AND SOCIO-ECONOMIC DIFFERENTIALS AND EDUCATIONAL CHANGE

Salient aspects of the cultural and natural environment provide an invaluable framework for analyzing educational change. In this chapter, the nature of the geographical background is discussed and various measures of socio-economic characteristics of the population are examined. Differential distributions of these factors are presented and indexes of educational development and change are utilized in analyses of interrelationships within this context.

TERRITORIAL SUBDIVISIONS OF THE STATE

Topography, climate, natural resources, oceans, rivers, lakes, flora and fauna represent major factors of the environment underlying population distribution and growth. Of similar significance are such factors as arable land, rainfall, harbors and navigable bodies of water. The location of natural resources, particularly timber and minerals, is of fundamental importance in determining the distribution of population.

Eastern and Western Washington. One of the most significant physical features of Washington is the Cascade Range, which divides the state in a north-south direction. In addition to the Cascade Range, there are other prominent topographical features extending generally from north to south. At the extreme west is a narrow coastal plain, next to the Olympic Mountains and Black Hills, then the Puget Sound Lowland or trough, and next the towering Cascade Mountains. In northeastern Washington are the Okanogan Highlands, the southern extension of the Selkirk Range of Canada. In the southeast corner of the state is the northern extremity of the Blue Mountains which are largely in Oregon. Most of the remaining portion of eastern Washington consists of the Columbia River Basin which is rimmed by hills, ridges and plateaus.[1]

The Cascade Mountains divide the state into two relatively distinct areas. The area west of the Cascades is characterized by irregular contours, abundant rainfall and mild temperatures, while the area east of the Cascades is characterized by plateaus, deserts and coulees, little rainfall and extreme temperatures. Within the West and East portions of the state, there are significant variations in topography, climate, rainfall and other physical features. For example, the average annual rainfall west of the Cascades is about 30 inches, but on the western side of the Olympic Peninsula, 100 inches is not uncommon. Temperatures vary with elevation and latitude, but generally the weather is relatively mild in the western portion of the state.

---

[1] Otis W. Freeman, *et al.*, *Resources of Washington*, Washington State Resources Committee, Seattle, 1954, pp. 5-9.

The total land area in the entire state is 66,786 square miles. Eastern Washington is almost twice as large in area as Western Washington — 41,960 square miles lie east of the Cascade Mountains, and 24,826 square miles, west.

Economic Areas. In order to examine differential trends for various parts of the state of Washington, the 39 counties have been combined into twelve basic territorial units, referred to as Economic Areas. Economic Areas may consist of a single county, but mainly are groups of counties which have similar economic and social characteristics. The boundaries of these Areas have been drawn in such a way that each one has certain significant characteristics which, in general, distinguish it from the other Areas which it adjoins.[2] Economic Areas 1, 2, 3, 4 and Metropolitan Economic Areas A and B are in Western Washington, while the other six Areas — Economic Areas 5a, 5b, 6, 7a, 7b and Metropolitan Economic Area D — are in Eastern Washington.

Economic Area 1 includes the six most westerly counties of the state — Clallam, Jefferson, Mason, Grays Harbor, Pacific and Wahkiakum. Their total land area is 7,631 square miles, or 11.4 per cent of the entire state.

A large portion of Economic Area 1 is rugged mountainous country, abundant in natural resources, particularly lumber. Lumbering is the most important industry. Some of the largest sawmills and other forest products industries, including pulp and plywood plants, are found in this area. In the coastal waters and on the beaches are rich supplies of fish, crabs, clams and oysters. Agriculture and food processing also are of basic importance.

Economic Area 2 consists of five counties situated in the northern Puget Sound area. They are Whatcom, Skagit, Snohomish, San Juan and Island. The two latter counties are composed of islands. Whidby Island, which is in Island County, is the second largest island in area in continental United States. The total land area of Economic Area 2 is 6,364 square miles. Major economic activities are lumbering, dairying, miscellaneous types of agriculture, food processing, fishing and recreation. Retail and wholesale trade also rank relatively high in importance.

Economic Area 3 and Metropolitan Areas A and B comprise, respectively, three counties — Kitsap, King and Pierce — bordering on Puget Sound. Their combined land area is 4,212 square miles. The chief economic activities in these counties include a wide variety of manufacturing and wholesale and retail business. There also are many small farms. A major United States Navy Yard is located at Bremerton in Kitsap County. The largest industry in the area is the Boeing Aircraft Company. Forest products, shipping and fishing are other important industries.

Economic Area 4 consists of five counties — Thurston, Lewis, Cowlitz, Skamania and Clark — in Western Washington, three of which border on the state of Oregon. Clark County, which is designated Metropolitan Area C by the United States Bureau of the Census, is contiguous to Oregon and is considered part of the Metropolitan Economic Area of Portland. The total land area of Economic Area 4 is 6,619 square miles. Lumbering, including various kinds of forest products and other manufacturing, and agriculture are the main economic activities in this area.

---

[2] Donald J. Bogue, *State Economic Areas*, United States Bureau of the Census, Washington, D. C., 1951, pp. 1-5.

Economic Area 5 includes the five most northerly counties east of the Cascade Range. Four of these counties — Okanogan, Ferry, Stevens and Pend Oreille, border on Canada and the fifth, Chelan County, is located southwest of Okanogan County. The total land area of this group of counties is 14,314 square miles, making it second largest among the Economic Areas of the state.

Economic Area 5 has been divided into two parts — *5a*, consisting of Chelan and Okanogan Counties, and *5b*, comprising Ferry, Stevens and Pend Oreille Counties. In Economic Area 5a, fruit growing is one of the most valuable sources of income. Wenatchee (Chelan County), the largest city in this area, is frequently referred to as the "apple capital of the world." The raising of livestock, lumbering, mining and related industries are also of major economic importance. This area has extensive water resources for both power and irrigation. Economic Area 5b, especially Stevens County, is noted for its livestock and dairying. Mining and lumbering also are of great economic importance. Magnesite, lead, zinc and gold are produced in this area.

Economic Area 6 comprises four counties located east of the Cascade Mountains in the central and south-central portion of Washington. Kittitas County, the most northerly, is perhaps closest to the geographical center of the state. The three other counties are Yakima, Klickitat and Benton. The land area of this group of counties is 10,238 square miles. In Economic Area 6, stock raising, grain farming, lumbering and manufacturing are of basic economic importance. The Yakima Valley is one of the most productive agricultural areas of the state, known especially for its fruits, vegetables and sugar beets.

Economic Area 7, in east-central and southeastern Washington, has been divided into two sections — Economic Area *7a*, consisting of Douglas, Grant, Lincoln, Adams and Franklin Counties, and Economic Area 7b, encompassing Whitman, Asotin, Garfield, Columbia and Walla Walla Counties. Economic Area 7 ranks first in the state in land area, with 15,645 square miles. The area of 7a is 9,989 square miles and of 7b, 5,656 square miles. Economic Area 7, predominantly an agricultural region, includes some of the most productive wheat farms in the nation. The Columbia Basin Reclamation District, one of the most rapidly growing sections of the state and an area of great potential growth, is included in Economic Area 7a. The reclaimable area in this project comprises around 2,500,000 acres, extending about 80 miles north and south, and approximately 60 miles east and west. About 1,000,000 acres are suitable for irrigation. The largest portion of the Columbia Basin Irrigation Project is located in Grant County, the remainder in Adams and Franklin Counties. The source of water for this project is the Columbia River, impounded by Grand Coulee Dam. The first water for the Columbia River Irrigation Project was delivered (between 1943 and

1950) to approximately 6,600 acres. Subsequently, additional areas have been serviced, and more acreage will be irrigated each year until the projected fifteen-year schedule is realized.

Metropolitan Area D, comprising Spokane County and including the city of Spokane, is located midway between the northern and southern limits of the state, contiguous to Idaho. In Spokane, second to Seattle in size of population and the trading center for the "Inland Empire," lumbering and manufacturing are major industries of economic importance. Spokane County has a land area of 1,763 square miles.

Other Subdivisions. For analytical purposes, various larger territorial groupings of Economic Areas have sometimes been utilized. These alternative groupings may include combinations of Areas such as: Areas west of the Cascade Mountains, Non-Metropolitan Areas, or Areas in the southern part of Eastern Washington.

INDICES OF GENERAL CULTURAL LEVEL

Of fundamental importance to a comprehensive analysis of educational change is detailed information about the general cultural environment underlying values and attitudes of the population about education. Reliable knowledge of this framework of factors impinging upon educational development is provided by data concerning certain basic characteristics of the adult population and economy such as educational attainment, marital status, income, occupation, and type and level of economic activities. Data on enrollment and graduation trends furnish a basis for evaluating relationships between the prevailing cultural context and educational development.

EDUCATIONAL STATUS OF THE ADULT POPULATION

The highest grade of schooling completed by residents who are 25 years of age or older provides a convenient measure of the educational status of the adult population. This group includes most of the parents of pupils enrolled in school.

In 1950, the state of Washington showed a median level of completed schooling that was much higher than that of the United States as a whole. Washington's adult population reported an average of 11.2 years in contrast to a median of 9.3 years for the nation. Average completed schooling ranged from 8.9 years in Ferry County to 12.3 years in Whitman County — both are located in Eastern Washington. Three other counties, Benton and Garfield in Eastern Washington and King in Western Washington, reported averages that indicate a significant proportion of the population completing education beyond high school. Median years of completed schooling for each of these counties was 12.1. With one exception, Ferry County, the adult population of all of the counties in the state showed an educational attainment, as measured by median grade completed, of at least the first year of high school, while in almost half of the counties, the median grade completed was more than the second year of high school.

Educational Attainment by Sex. In analyzing these data in more detail, it is productive to examine similarities and differences by sex.

It is immediately evident in Figure 2:1 that the level of school attained by the female adult population is somewhat higher than that of the male population. This is true of all counties. The median number of years of schooling completed by females in 1950 was 11.8, which contrasts with a median of 10.5 years completed by males. In some parts of the state, the median year of completed education for males and females differs by as much as two or even three years.

In only one of the thirty-nine counties (Ferry) does the median level of completed education fall below the second year of high school for females, in comparison to 24 counties for the male adult population -- one of the most emphatic contrasts between male and female educational attainment. Perhaps a more significant divergence is the fact that in only one of the 39 counties (Whitman) does the male population attain a median level indicating at least completion of high school, in comparison to ten counties for the female population.

In Western Washington, the counties surrounding Puget Sound reported the highest averages for the male population. In Eastern Washington, generally higher levels were attained by males in the central, southcentral and easternmost counties. A similar geographic distribution is apparent for the highest average levels of completed education attained by the female population.

Between 1940 and 1950, a dramatic shift upward occurred in this measure of educational status. The median years of completed schooling for males rose from 8.9 years in 1940 to 10.5 years in 1950, while average schooling for females increased from 10.0 years in 1940 to 11.8 years in 1950. For both males and females, the greatest change occurred in those areas reporting the highest average levels of completed education in 1950.

Highest Grade Completed. In 1950, about one in one hundred (.9 per cent) of the adult population was classified as having completed less than one year of school, while about one-fifth (20.8 per cent) had completed their education at the eighth grade, and more than one-fourth (26.2 per cent) terminated formal schooling upon completion of high school. A little more than seven out of one hundred (7.2 per cent) completed four years or more of college. Comparable percentages for these categories in 1940 indicate a general shift toward a higher level of completed schooling during the decade. In 1940, there were 19.7 per cent who had finished their education upon completion of high school and only 3.5 per cent who had completed four years or more of college. The adult population in twenty-eight counties reported in 1950 that at least 5 per cent had completed four years or more of college. Ten years earlier, only ten counties were so classified.

While there was generally a greater proportion of the adult population in the state who completed their education at the end of high school rather than elementary school, there were four Economic Areas in which this was not true in 1950. (Figure 2:2) One of these was Economic Area 2 in Western Washington, and the other three were Economic Areas 5a, 5b and 6 in Eastern Washington. Skagit and Whatcom Counties contributed principally to the divergence in Economic Area 2, while all three counties in Area 5b were predominantly lower in educational attainment. Okanogan was the only one of the two counties in Economic Area

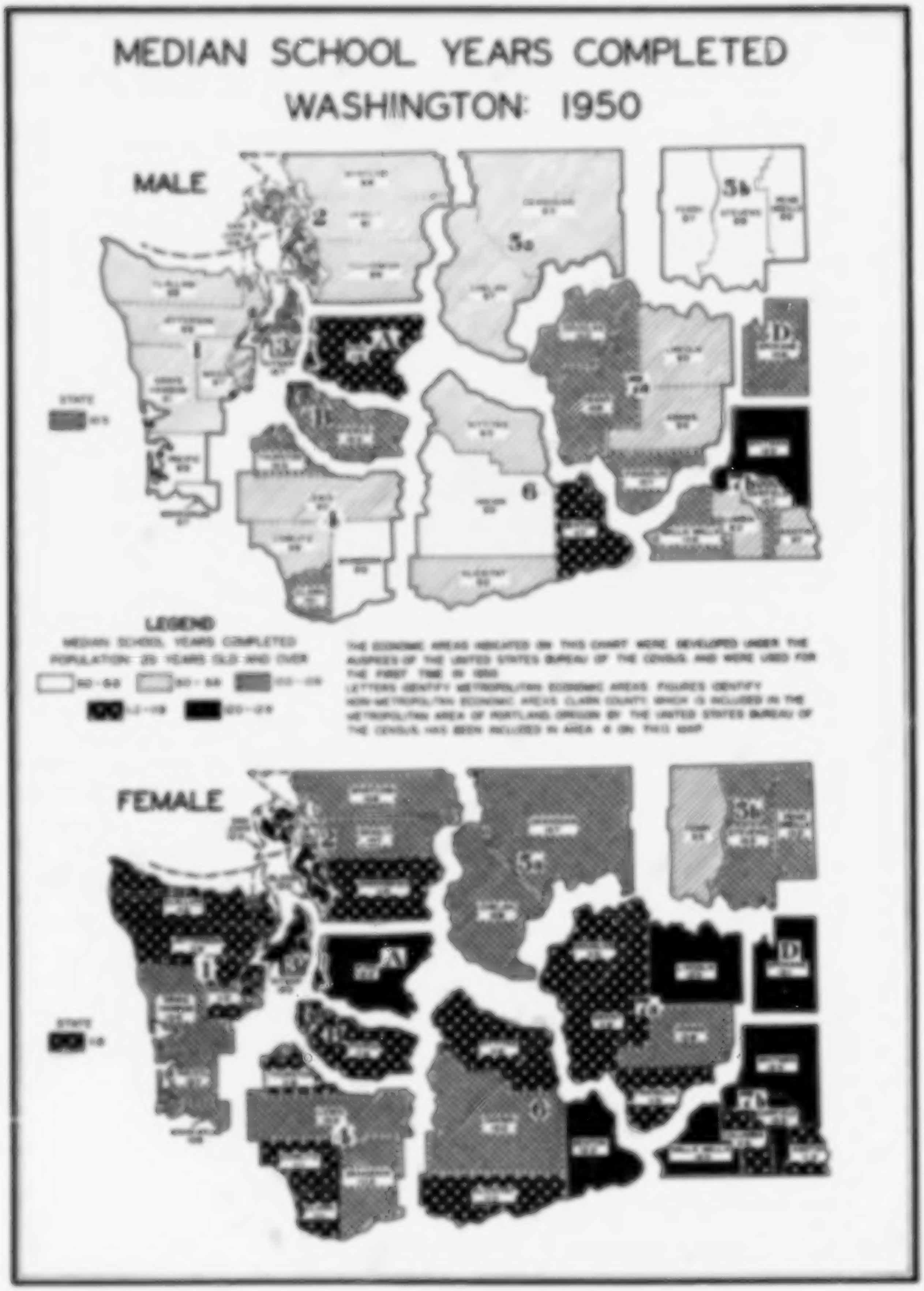

MEDIAN SCHOOL YEARS COMPLETED
WASHINGTON: 1950
MALE
FEMALE
STATE
LEGEND
MEDIAN SCHOOL YEARS COMPLETED
POPULATION 25 YEARS OLD AND OVER
THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS AND WERE USED FOR THE FIRST TIME IN 1950.
LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.
1
2
3
4
5a
5b
6
A
B
C
D

Figure 2:1

5a in which a greater proportion of the adult population had finished schooling at the elementary level than at the high school level. In its entirety, Economic Area 6 showed equal proportions ending school at the 8th grade and 12th grade. However, when data for the component counties are examined, one county, Yakima, shows a marked reversal of the general level of educational attainment. Additional counties in both Eastern and Western Washington show reversals of similar magnitude. These are Pacific and Wahkiakum Counties in Economic Area 1 and Lewis and Skamania Counties in Economic Area 4. In southeastern Washington, Asotin County (Economic Area 7b) shows a distinctly lower level of educational attainment.

In general, educational status, as measured by highest grade of school completed, was higher in Western Washington in 1950 than in Eastern Washington. Approximately 27 per cent of the adult population in Western Washington had concluded their education upon completion of high school, compared to about 25 per cent in Eastern Washington. The Metropolitan Economic Areas reported higher proportions of the adult population having a greater number of years of completed schooling than the Non-Metropolitan Economic Areas.

The highest percentages of the adult population who completed education with graduation from high school were recorded in 1950 in King (28.7) and Kitsap (29.6) Counties in Western Washington, and in Benton (29.1), Franklin (28.2), Garfield (29.0) and Spokane (27.8) Counties in Eastern Washington. Counties with percentages on this measure that were much below the state average of 26.2 per cent were Skamania (16.1) and Wahkiakum (19.6) in southwestern Washington, Yakima (20.4) in southcentral Washington, and Ferry (17.8), Pend Oreille (20.6) and Stevens (19.6) in the northeastern part of the state.

Of the 1950 adult population who terminated their education upon completion of elementary school, counties with the largest percentages were Skamania (31.2) and Wahkiakum (27.8) in southwestern Washington. Proportions appreciably lower than the state average of 20.8 per cent were reported for King (17.6) County in Western Washington, and for Benton (18.2), Franklin (19.4) and Whitman (17.3) Counties in southeastern Washington.

PROPORTION OF THE POPULATION ENROLLED IN SCHOOL

The proportion of the population 14 through 17 years of age enrolled in schools may be used to represent an index of general cultural level. In the state of Washington, the percentage of this age-group attending school in 1950 was 89.7, which was substantially greater than the 83.7 per cent reported for the entire United States. Western Washington (89.8 per cent) and Eastern Washington (89.4 per cent) differed but slightly.

Among the various areas of the state, however, this index varied from 93.5 per cent in Economic Area 3 (Kitsap County) to 82.5 per cent in Metropolitan Area B (Pierce County). Metropolitan Area D (Spokane County), Economic Area 5b and Metropolitan Area A (King County), with percentages of 92.3, 92.1 and 91.4, respectively, ranked second, third and fourth highest. Economic Area 1 (89.7 per cent), Economic Area 7a (86.7 per cent) and Economic Area 6 (86.6 per cent) ranked fourth, third and second lowest, respectively.

YEARS OF COMPLETED EDUCATION
WASHINGTON: 1950

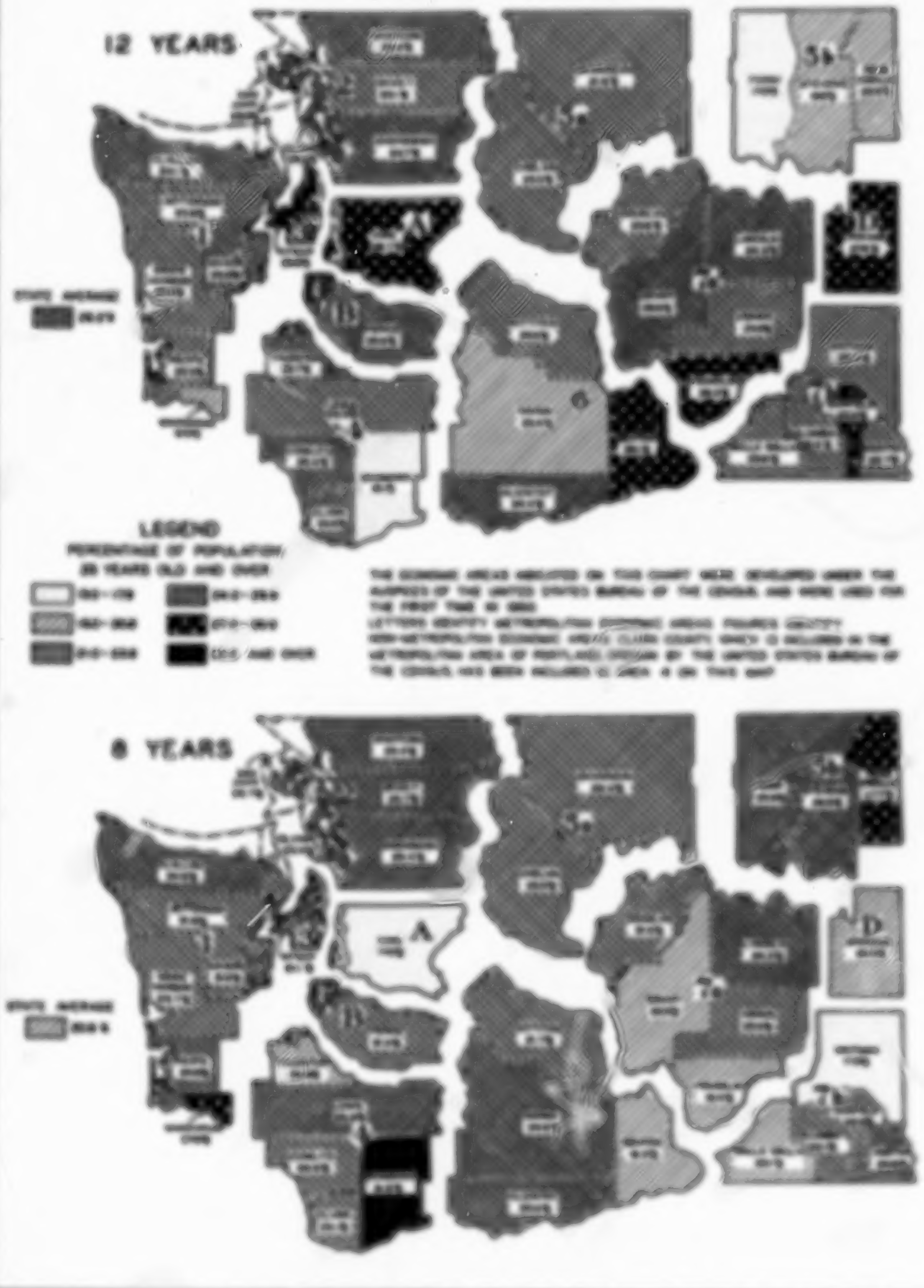

12 YEARS
STATE AVERAGE
LEGEND
PERCENTAGE OF POPULATION
25 YEARS OLD AND OVER
8 YEARS
STATE AVERAGE
A
B
D

Figure 2:2

When counties are considered separately, relatively high proportions of the population 14 through 17 years of age enrolled in school are to be found in Island County (95.9 per cent), Clallam County (94.7 per cent), Garfield County (94.1 per cent), Stevens County (93.7 per cent), Whitman County (93.1 per cent) and Clark County (93.0 per cent). Counties reporting lower percentages included Grant (80.9), Yakima (84.8), San Juan (86.1), Mason (86.9) and Klickitat (87.0). There is no consistent relationship between differential distributions of this measure and indices of educational attainment of the adult population discussed in a previous section of this chapter.

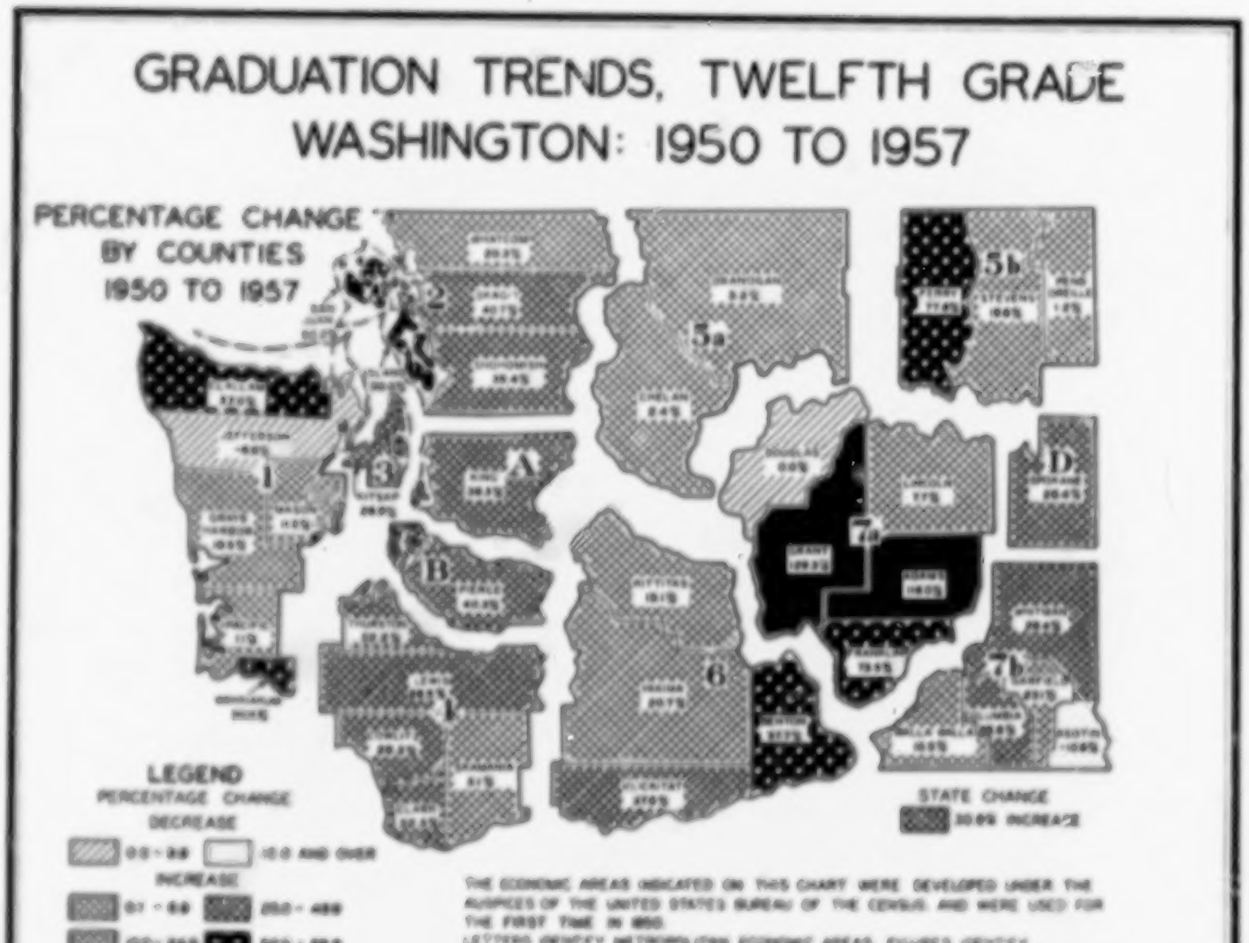
GRADUATION TRENDS IN ELEMENTARY AND SECONDARY SCHOOLS

The territorial distribution of recent graduates of the two major divisions in the precollege educational system, elementary school and high school, provides a measure of the relative dispersion of enrollment throughout the state. The number of students completing the 12th grade and 8th grade furthermore reflects a composite index of both long- and short-term population and cultural factors acting upon the educational system as well as indicating actual educational status attained by the pre-adult population.

High School Graduates: 1957. At the end of the 1956-57 academic year, there were 23,101 pupils who graduated from the 12th grade in all public schools in the state. (Figure 2:3) More than two-thirds (15,963) of these pupils graduated from high schools in Western Washington, including Metropolitan Economic Area A (King County), which had more than one-fourth (6,147) of all the graduates in the entire state. Ranking next to Economic Area A in number of high school graduates were Economic Area 2 (2,730), Economic Area 4 (2,729), Economic Area 6 (2,350), and Metropolitan Areas B, Pierce County (2,170) and D, Spokane County (1,937). Economic Area 5b (376) had the fewest number of pupils graduating from high school. Less than 50 pupils graduated from high schools administered by Ferry (48), Skamania (41), Douglas (35), San Juan (35), Wahkiakum (33) and Garfield (32) Counties.

Elementary School Graduates: 1957. In June, 1957, there were 39,185 pupils who completed the eighth grade in the state's schools. (Figure 2:4) More than twice as many pupils (28,061) graduated from elementary schools in Western Washington than in Eastern Washington (11,124). In fact, there was a greater number completing eighth grade in Metropolitan Area A, King County (11,456) alone, than in all of Eastern Washington. Other relatively large numbers of pupils completed elementary school in Economic Area 2 (4,492), Metropolitan Area B, Pierce County (4,357), Economic Area 4 (4,248), Economic Area 6 (4,030) and Metropolitan Area D, Spokane County (2,482). Economic Area 5b (562) had the smallest number of 8th grade graduates. Less than 100 pupils graduated from elementary schools administered by Ferry (90), Columbia (82), Skamania (78), Wahkiakum (47), San Juan (41) and Garfield (34) Counties.

Graduation Trends, Twelfth Grade. Between 1950 and 1957, the number of graduating senior high school pupils increased 30.8 per cent — from 17,665 to 23,101. The rate of change was somewhat higher for Western Washington (33.0 per cent) than for Eastern Wash-


GRADUATION TRENDS, TWELFTH GRADE
WASHINGTON: 1950 TO 1957
PERCENTAGE CHANGE
BY COUNTIES
1950 TO 1957
1
2
3
4
5a
5b
6
7a
7b
A
B
D
LEGEND
PERCENTAGE CHANGE
DECREASE
0.0 - 9.9
10.0 AND OVER
INCREASE
0.1 - 9.9
25.0 - 49.9
10.0 - 24.9
50.0 - 99.9
100.0 AND OVER
STATE CHANGE
30.9% INCREASE
GRADUATES
BY COUNTIES
JUNE, 1957
LEGEND
NUMBER OF GRADUATES
25
100
500
1000
5,000
STATE TOTAL
23,101

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.
LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

Figure 2:3

ington (26.1 per cent). Except for southwestern Washington, the gains were relatively large throughout the western part of the state, while large percentage increases were noticeable only in certain sections of Eastern Washington. Part of Economic Area 7a was the most concentrated area of large relative increase, where percentage gains for Grant (129.3), Adams (116.0) and Franklin (73.5) Counties were among the highest in the state. Ferry County (77.8 per cent) and Benton County (57.7 per cent) also registered large proportionate increases in Eastern Washington. The greatest relative changes in Western Washington occurred in San Juan, Clallam, Island and Wahkiakum Counties, where the percentage gains were 52.2, 52.0, 50.0 and 50.0, respectively. Two counties in opposite corners of the state declined during this period. These were Asotin (-10.9 per cent) and Jefferson (-6.8 per cent).

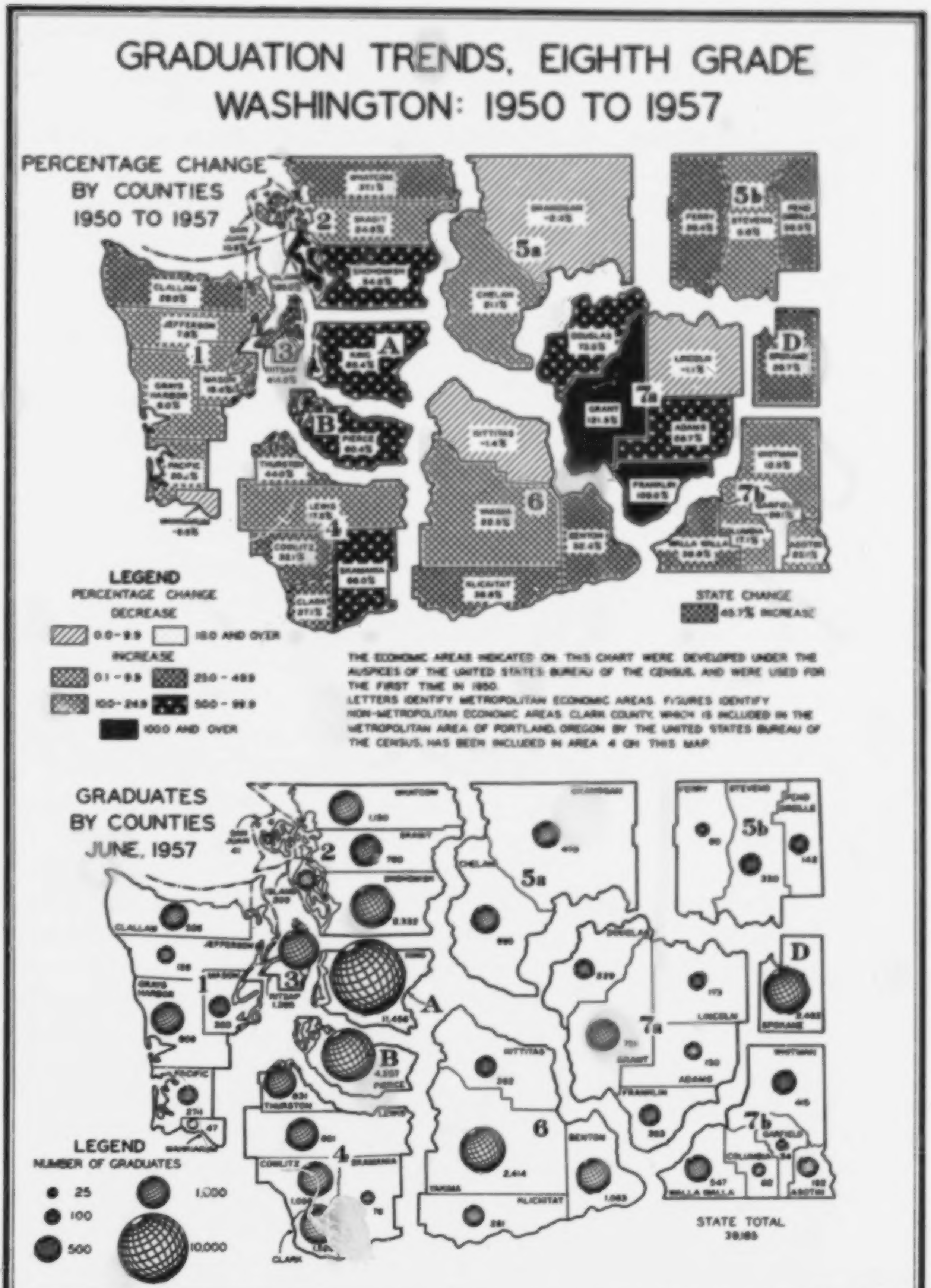
Graduation Trends, Eighth Grade. The number of eighth grade graduates increased at a much greater rate between 1950 and 1957 than graduates of high schools. The number graduating from eighth grade increased 45.7 per cent — from 26,891 to 39,185. The rate of change in Western Washington (54.0 per cent) was almost twice that of Eastern Washington (28.4 per cent). The greatest relative increases were not so dispersed as were those for high school graduates. Eight contiguous counties showed proportionate gains of more than 50.0 per cent -- four in Western Washington and four in Eastern Washington. Largest percentage increases were registered by Island (120.0), King (80.4), Pierce (60.4) and Snohomish (54.8) Counties in the West, and by Grant (121.5), Franklin (109.0), Douglas (73.5) and Adams (66.7) Counties in the East. One other county reported a relatively large gain in number of eighth grade graduates — Skamania County increased 66.0 per cent. Five widely scattered counties declined between 1950 and 1957 — one in Western Washington and four in Eastern Washington. These were Garfield (-26.1 per cent), Wahkiakum (-6.0 per cent), Okanogan (-2.4 per cent), Kittitas (-1.4 per cent) and Lincoln (-1.1 per cent).

MARITAL STATUS OF THE ADULT POPULATION

In 1950, there were 1,781,875 persons in the state of Washington who were 14 years of age or older. About two out of ten were single (371,610), almost seven out of ten were married (1,216,046) and approximately one out of ten was widowed or divorced.

An equal proportion (20.9 per cent) of the population 14 years old and over in both Western and Eastern Washington were single. However, there was a slightly smaller percentage of this population group in Western Washington (67.9 per cent) than in Eastern Washington (69.1 per cent) who were married. Those who were widowed or divorced predominated in Western Washington — 11.3 per cent vs. 10.0 per cent in Eastern Washington. In general, a greater proportion of the population who were single was found in the Metropolitan Economic Areas. The Non-Metropolitan Areas had a greater proportion who were married.

Two contiguous counties, Benton (77.0 per cent) and Franklin (75.7 per cent), reported more than 75.0 per cent of the population in this age group who were married. On the other hand, Pierce (62.6 per cent) and Whitman (61.3 per cent) Counties had a much lower proportion who were married.


PERCENTAGE CHANGE BY COUNTIES 1950 TO 1957
LEGEND
PERCENTAGE CHANGE
DECREASE
0.0 - 9.9
10.0 AND OVER
INCREASE
0.1 - 9.9
25.0 - 49.9
10.0 - 24.9
50.0 - 99.9
100.0 AND OVER
STATE CHANGE
45.7% INCREASE
GRADUATES BY COUNTIES JUNE, 1957
LEGEND
NUMBER OF GRADUATES
25
100
500
1,000
10,000
STATE TOTAL
39,185
1
2
3
4
5a
5b
6
7a
7b
A
B
D
CLALLAM
JEFFERSON
GRAYS HARBOR
MASON
PACIFIC
WAHKIAKUM
KITSAP
KING
PIERCE
THURSTON
LEWIS
COWLITZ
CLARK
SKAMANIA
WHATCOM
SKAGIT
SNOHOMISH
OKANOGAN
CHELAN
DOUGLAS
GRANT
LINCOLN
ADAMS
FRANKLIN
KITTITAS
YAKIMA
KLICKITAT
BENTON
FERRY
STEVENS
PEND OREILLE
SPOKANE
WHITMAN
WALLA WALLA
COLUMBIA
GARFIELD
ASOTIN

GRADUATION TRENDS, EIGHTH GRADE WASHINGTON: 1950 TO 1957

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.
LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

Figure 2:4

INCOME OF FAMILIES AND UNRELATED INDIVIDUALS

An index of socio-economic levels for different parts of the state is the median income of families and unrelated individuals. The median income of families and unrelated individuals for the entire state of Washington was $2,955 in 1949.

For the state as a whole, 9.3 per cent of families and unrelated individuals reported incomes of less than $500.[3] There were 30.8 per cent with incomes ranging between $500 and $2,499, while 37.3 per cent had incomes between $2,500 and $4,999 and 14.3 per cent, between $5,000 and $9,999. Incomes of $10,000 or more were reported by 2.2 per cent.

Economic Areas 7a (5.8 per cent) and 7b (3.8 per cent) and Metropolitan Areas A (2.7 per cent) and D (2.3 per cent) had the largest proportions of families and unrelated individuals whose income was $10,000 or more, while Economic Area 2 (1.3 per cent), Economic Area 3 (.7 per cent) and Economic Area 5b (1.0 per cent) registered the lowest proportions in this income category.

Largest percentages of those whose income was less than $500 occurred in Economic Area 5b (11.5), Economic Area 7b (11.5), and Economic Area 2 (10.9), while lowest percentages were indicated for Economic Area 7a (6.8), Economic Area 5a (8.3), Economic Area 3 (8.4) and Economic Area 6 (8.6). Proportions of families and unrelated individuals reporting incomes between $5,000 and $9,999 ranged from 7.6 per cent in Economic Area 5a to 17.1 per cent in Metropolitan Area A. Except for Economic Area 7a (16.8 per cent), the Non-Metropolitan Areas had proportions below the state average of 14.3 per cent.

Of the thirty-nine counties, Island County ranked lowest with $1,875 and Benton County, highest with $4,066. The high median income in Benton County is due to the relatively high wages and salaries received by professional and other workers at the Hanford Atomic Products Operation. The relatively low median income in Island County probably can be explained by the small farming units as well as the large number of enlisted personnel at the Whidby Island Naval Station. Also, the apparently low median income figure for Pierce County ($2,368) may be attributed to the large number of military personnel at Fort Lewis and McChord Field. In addition to Benton County, relatively high median incomes were found in Adams ($3,450), Lincoln ($3,421), Franklin ($3,391), Cowlitz $3,313) and King ($3,222) Counties. Ferry ($2,089), Jefferson ($2,092), Stevens ($2,126) and San Juan ($2,183) ranked relatively low in median income.

LABOR FORCE

In 1950, of the state's population 14 years of age or older, 53.7 per cent were in the labor force. Economic Areas 2 (49.1 per cent) and 7b (49.7 per cent) were the only Areas with less than half of this age group in the labor force. Among the Economic Areas, Metropolitan Area A (55.1 per cent) and Metropolitan Area B (56.7 per cent) reported the highest proportions in the labor force. However, three contiguous counties in southcentral Washington — Benton (60.3 per cent), Franklin (61.0 per cent) and Grant (63.5 per cent) — had the highest percentages of the population 14 years of age and over in the labor force. Lowest proportions of the population 14 years of age or older in the labor force occurred in Kittitas (48.6), Lewis (47.9), Skamania (47.8), Asotin (47.3) and Skagit (46.6) Counties.

---

[3] Persons reporting no income are included in this category.

Employed Labor Force. The 1950 census enumerated 47.1 per cent of the population 14 years of age and older in the "employed" labor force. Western Washington reported 46.6 per cent as members of the employed labor force, while 48.4 per cent were recorded in Eastern Washington. Economic Area 7a (52.7 per cent) and Metropolitan Economic Area A (50.0 per cent) had the largest proportions employed. Among Non-Metropolitan counties, the largest percentages of the population 14 years of age and over classified as in the employed labor force were in Benton (55.8), Adams (55.2), Franklin (54.3), Grant (53.0), Douglas (51.2), Cowlitz (51.0), Grays Harbor (50.8) and Lincoln (50.4) Counties.

Occupations. In 1950, the occupations of 9.9 per cent of the employed labor force in the state of Washington were classified as professional, technical and kindred workers, while 5.4 per cent were farmers and farm managers, and 10.3 per cent, proprietors, managers and officials. The largest proportion (20.2 per cent) of the employed labor force was classified as clerical, sales and kindred workers. Two groups of similar size — craftsmen, foremen and kindred workers, and operatives and kindred workers — contained 15.8 per cent and 14.9 per cent, respectively, of the employed labor force. Two other occupational categories — private household workers, and laborers except farm and mine — included 8.7 per cent and 8.2 per cent, respectively, of the employed labor force.

Metropolitan Areas A (11.7 per cent) and D (10.0 per cent) surpassed the state (9.9 per cent) in proportion of labor force employed as professional, technical and kindred workers. The only other Area that exceeded the state average was Economic Area 7b (12.1 per cent). Washington State University is located at Pullman in Whitman County, which is predominantly an agricultural area. Other similar instances of relatively high proportions of the labor force in this category included: Benton County (14.4), the site of the Hanford Atomic Works; Walla Walla County (11.6), the site of two colleges and the state penitentiary; and Thurston County (10.3), the site (Olympia) of the state capitol.

Counties that ranked relatively low in the proportion of professional, technical and kindred workers were Clallam (8.0), Douglas (8.0), Snohomish (8.0), Pend Oreille (7.9), Lewis (7.7), Yakima (7.7), Island (7.4), Asotin (7.3), Columbia (7.3), Cowlitz (7.3), Garfield (7.0), Stevens (6.7), San Juan (6.6), Adams (6.5), Lincoln (6.5), Grays Harbor (6.4), Skamania (6.3), Ferry (6.2), Pacific (6.2), Klickitat (5.7) and Wahkiakum (4.8).

Farmers and farm managers included only 3.5 per cent of the employed labor force in Western Washington — in contrast to an average of 10.0 per cent in the Eastern part of the state. The largest proportions of the employed labor force classified as farmers and farm managers occurred mostly in Central Washington — Economic Area 5b (22.6 per cent), Economic Area 6 (11.6 per cent), Economic Area 7a (14.5 per cent) and Economic Area 7b (12.7 per cent). In Western Washington, Economic Area 2 also reported a large percentage in this category (9.8). Smallest proportions were indicated for Metropolitan Areas — A (1.0 per cent), B (2.4 per cent) and D (3.3 per cent).

Proportions of the employed labor force classified as clerical, sales and kindred workers ranged from 26.5 per cent in Metropolitan Area A to 8.7 per cent in Economic Area 5b. In Western Washington, there were 21.3 per cent in this category, in contrast to 17.7 per cent in Eastern Washington. Metropolitan Areas D (24.3 per cent) and B (20.3 per cent) ranked second and third, respectively, in proportion of labor force with occupations in this category. Except for Thurston County (20.6 per cent), which includes the state capitol at Olympia, other areas in the state had relatively smaller proportions. Counties with very low percentages of employed labor force classified as clerical, sales and kindred workers were Douglas (9.6), Klickitat (9.5), Stevens (9.4), Lincoln (9.3), San Juan (8.9), Pend Oreille (8.4), Skamania (7.1), Wahkiakum (7.0) and Ferry (5.9).

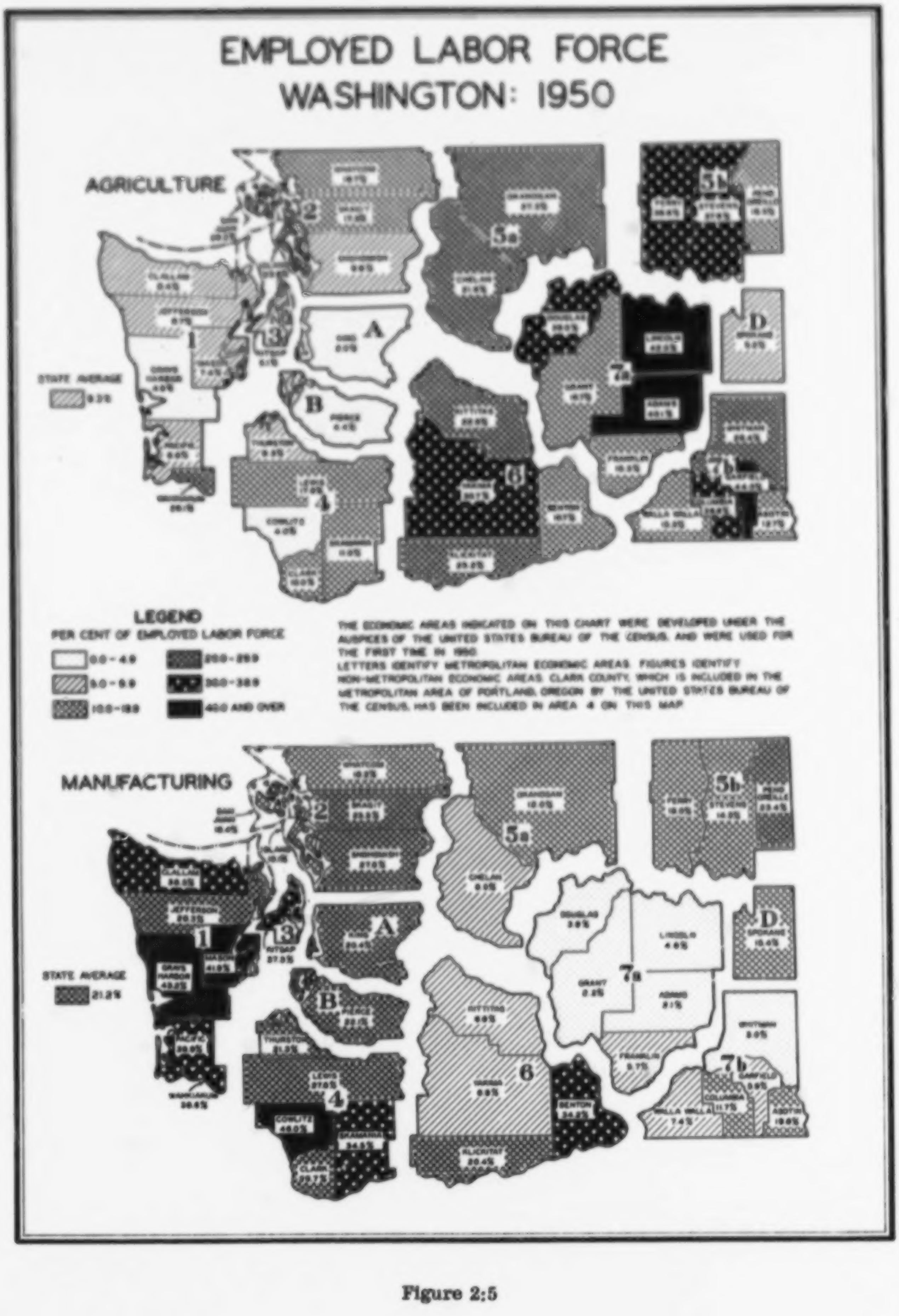
Industry Group of Employed Persons. Classification of the employed labor force by industry group reveals that a total of 61.2 per cent were included in three major fields in 1950 — manufacturing (21.2 per cent), trade (20.7 per cent) and services (19.3 per cent). In addition, sizable proportions were employed in agriculture (9.3 per cent), transportation, communication and public utilities (9.2 per cent), construction (8.2 per cent) and public administration (5.6 per cent). Other somewhat smaller percentages are shown by finance, insurance and real estate (3.8), forestry and fisheries (.8) and mining (.5).

Employment in Agriculture and Manufacturing. Because factors and conditions associated with agriculture differ so markedly from those of manufacturing, the differential distributions of workers in these two fields are discussed in some detail.

It is apparent from Figure 2:5 that fairly definite and contrasting patterns in the geographical distribution of workers engaged in agriculture and in manufacturing exist in the state of Washington. As indicated above, 9.3 per cent of the labor force in the state of Washington are employed in agriculture, while 21.2 per cent are in manufacturing. Western Washington has 5.6 per cent of its labor force employed in agriculture, in contrast to 18.0 per cent in Eastern Washington. In Western Washington, 24.7 per cent are employed in manufacturing, in comparison to 12.9 per cent in Eastern Washington. Those engaged in agriculture range from 2.0 per cent in Metropolitan Area A to 33.1 per cent in Economic Area 5b, while proportionate employment in manufacturing ranges from 40.3 per cent in Economic Area 1 to 3.6 per cent in Economic Area 7a.

Several counties are markedly different in the proportions of workers employed in agriculture and in manufacturing. For example, Adams County has 40.1 per cent employed in agriculture and only 2.1 per cent in manufacturing, compared to Cowlitz County with only 4.0 per cent in agriculture and 46.0 per cent in manufacturing.

Except for Island (10.1 per cent), San Juan (18.4 per cent) and Whatcom (18.2 per cent) Counties, Western Washington counties had more than one-fifth of their employed labor force engaged in manufacturing. On the other hand, with the exception of Spokane (5.2 per cent), Franklin (10.3 per cent), Benton (10.7 per cent), Grant (10.7 per cent), Asotin (12.7 per cent), Walla Walla (15.3 per cent) and Pend Oreille (18.5 per cent) Counties, Eastern


EMPLOYED LABOR FORCE
WASHINGTON: 1950
AGRICULTURE
STATE AVERAGE
MANUFACTURING
STATE AVERAGE
21.2%
LEGEND
PER CENT OF EMPLOYED LABOR FORCE
0.0 - 4.9
5.0 - 9.9
10.0 - 19.9
20.0 - 29.9
30.0 - 39.9
40.0 AND OVER
1
2
3
4
5a
5b
6
7a
7b
A
B
D
CLALLAM
JEFFERSON
GRAYS HARBOR
PACIFIC
WAHKIAKUM
LEWIS
COWLITZ
SKAMANIA
CLARK
THURSTON
KITSAP
MASON
KING
PIERCE
WHATCOM
SKAGIT
SNOHOMISH
OKANOGAN
CHELAN
DOUGLAS
FERRY
STEVENS
PEND OREILLE
LINCOLN
SPOKANE
GRANT
ADAMS
WHITMAN
KITTITAS
YAKIMA
KLICKITAT
BENTON
FRANKLIN
WALLA WALLA
COLUMBIA
GARFIELD
ASOTIN

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

Figure 2:5

Washington counties had more than one-fifth of their labor force employed in agriculture.

DIFFERENTIALS IN ECONOMIC ACTIVITY: 1939 AND 1954

Figure 2:6 portrays differences and trends in economic activities among the various Economic Areas in the state of Washington. The most recent data of this kind are for 1954. In order to measure trends, comparable data for 1939 are included in this presentation. In 1939 the total value of goods and services for agriculture, manufacturing, and retail and wholesale trade was $1,835,085,000 as compared to $8,396,429,000 in 1954. Per capita values in 1939 for these four categories were as follows: total, $1,057; agriculture, $75; manufacturing, $154; retail, $385; and wholesale, $442. The corresponding per capita figures for 1954 are: total, $3,212; agriculture, $197; manufacturing, $604; retail, $1,064; and wholesale, $1,348. Adjusting the 1939 series for changing value of the dollar reduces the disparity between the 1939 and 1954 ratios. Adjusted 1939 figures are: total, $2,315; agriculture, $198; manufacturing, $332; retail, $811; and wholesale, $974. Adjusted per capita values show that manufacturing and retail and wholesale trade have definitely increased, and that agriculture has remained approximately the same.

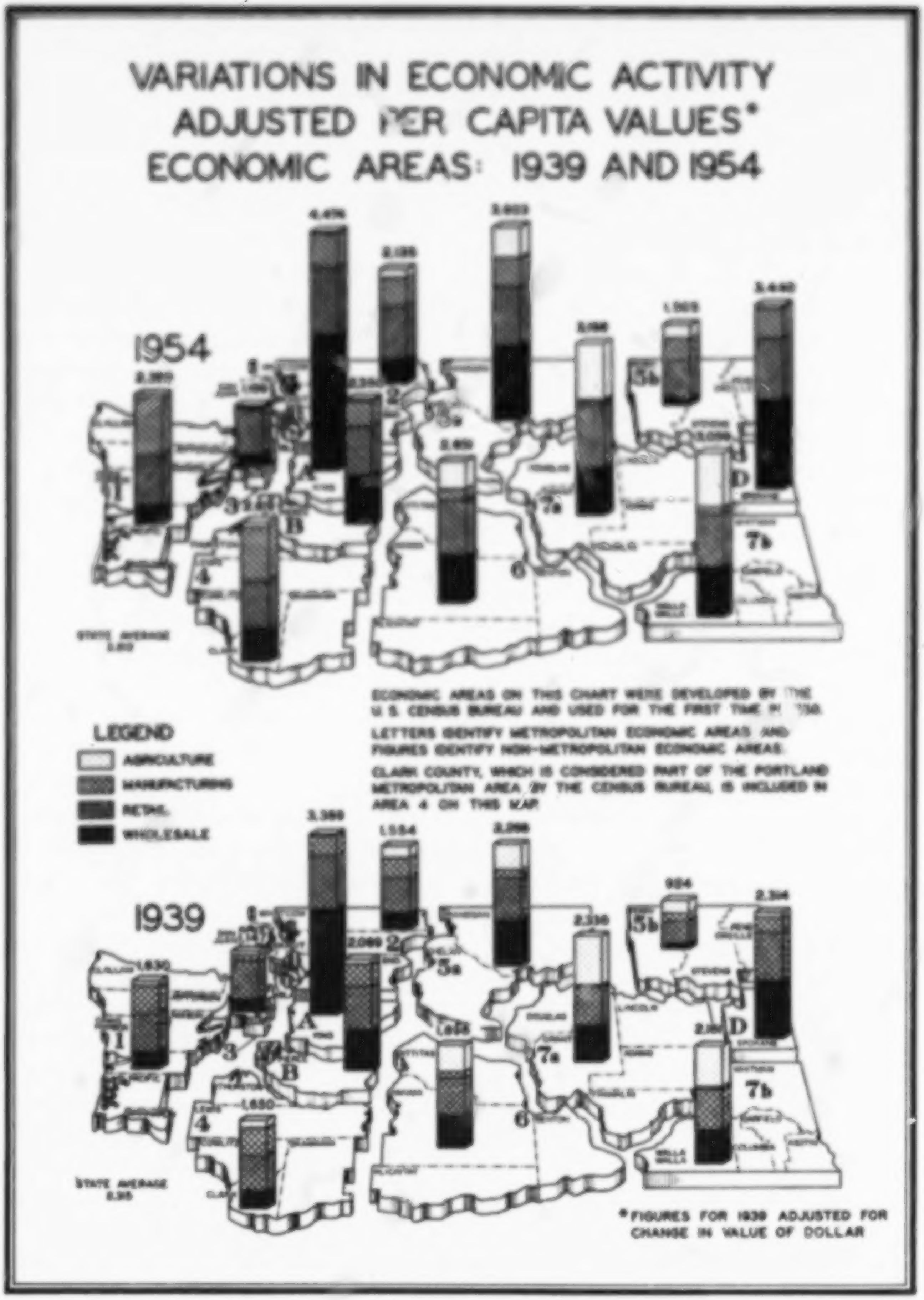
It will be seen from Figure 2:6 that in 1954, among the 12 Economic Areas in the state of Washington, Area 7a ranks first in per capita agricultural products with $1,087; Area 7b is second highest with $1,014; Area 5a, third with $580; and Area 6, fourth with $550. Area 3 (Kitsap County) is lowest in per capita agriculture production with $21. Metropolitan Area A (King County) is second lowest with $23 and Metropolitan Area B (Pierce County) is third lowest with $41. Per capita manufacturing production is highest in Area 1 ($1,021), second highest in Area 4 ($1,004), and third in Metropolitan Area A, King County ($876). Manufacturing ranks lowest in Area 3 ($58), second lowest in Area 7a ($76) and third lowest in Area 7b ($145). Retail trade is highest in Metropolitan Area A (King County) with $1,242 and second in Metropolitan Area D (Spokane County) with $1,181. Per capita values above $1,000 also are indicated for Area 7a ($1,167), Area 5a ($1,093) and Area 6 ($1,015).

Wholesale trade in Area A ($2,534) is the highest per capita value of any category. In fact, it ranks above the total per capita values for Areas 1, 2, 3, 5b and B. Wholesale trade ranks second in Area D ($1,632) and third in 5a ($1,408).

Per capita values for all 4 categories combined range from a minimum of $1,169 in Area 3 to $4,474 in Metropolitan Area A. Metropolitan Area A ranks first in 1954, and also held the same rank (adjusted ratios) in 1939. (Figure 2:6) Area 5a ($3,603) is second highest, D ($3,440) is third and 7a ($3,198) fourth. Area 5b ($1,505) ranks second lowest, Area 2 ($2,135), third lowest and Area 1 ($2,389), fourth lowest.

TRENDS IN ECONOMIC ACTIVITY AND EDUCATION: 1939 TO 1954

Between 1939 and 1954, economic activity (as measured by indices of production in manufacturing, agriculture, retail and wholesale trade) in the state of Washington increased



VARIATIONS IN ECONOMIC ACTIVITY
ADJUSTED PER CAPITA VALUES*
ECONOMIC AREAS: 1939 AND 1954

LEGEND

- ▭ AGRICULTURE
- ▨ MANUFACTURING
- ▩ RETAIL
- ■ WHOLESALE

ECONOMIC AREAS ON THIS CHART WERE DEVELOPED BY THE U. S. CENSUS BUREAU AND USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS AND FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS.

CLARK COUNTY, WHICH IS CONSIDERED PART OF THE PORTLAND METROPOLITAN AREA BY THE CENSUS BUREAU, IS INCLUDED IN AREA 4 ON THIS MAP.

*FIGURES FOR 1939 ADJUSTED FOR CHANGE IN VALUE OF DOLLAR

1954
1939
STATE AVERAGE
STATE AVERAGE
1
2
3
4
5a
5b
6
7a
7b
A
B
D
1,554
2,336

Figure 2:6

by 38.8 per cent. Educational change (as measured by total enrollment in grades one through twelve) during this period was 45.6 per cent. (Figure 2:7)

Economic activity increased 34.2 per cent in Western Washington and 52.8 per cent in Eastern Washington. Greatest relative change occurred in Economic Area 5b (82.8 per cent), and least change, in Economic Area 3 (2.0 per cent). In terms of adjusted per capita values, absolute change in Western Washington between 1939 and 1954 was $819, and $1,105 in Eastern Washington. Greatest absolute increase in economic activity took place in Economic Area 5a ($1,335), Metropolitan Area D ($1,126), Metropolitan Area A ($1,085) and Economic Area 4 ($970), while least absolute increase occurred in Economic Area 3 ($23), Metropolitan Area B ($280), Economic Area 2 ($580) and Economic Area 6 ($753).

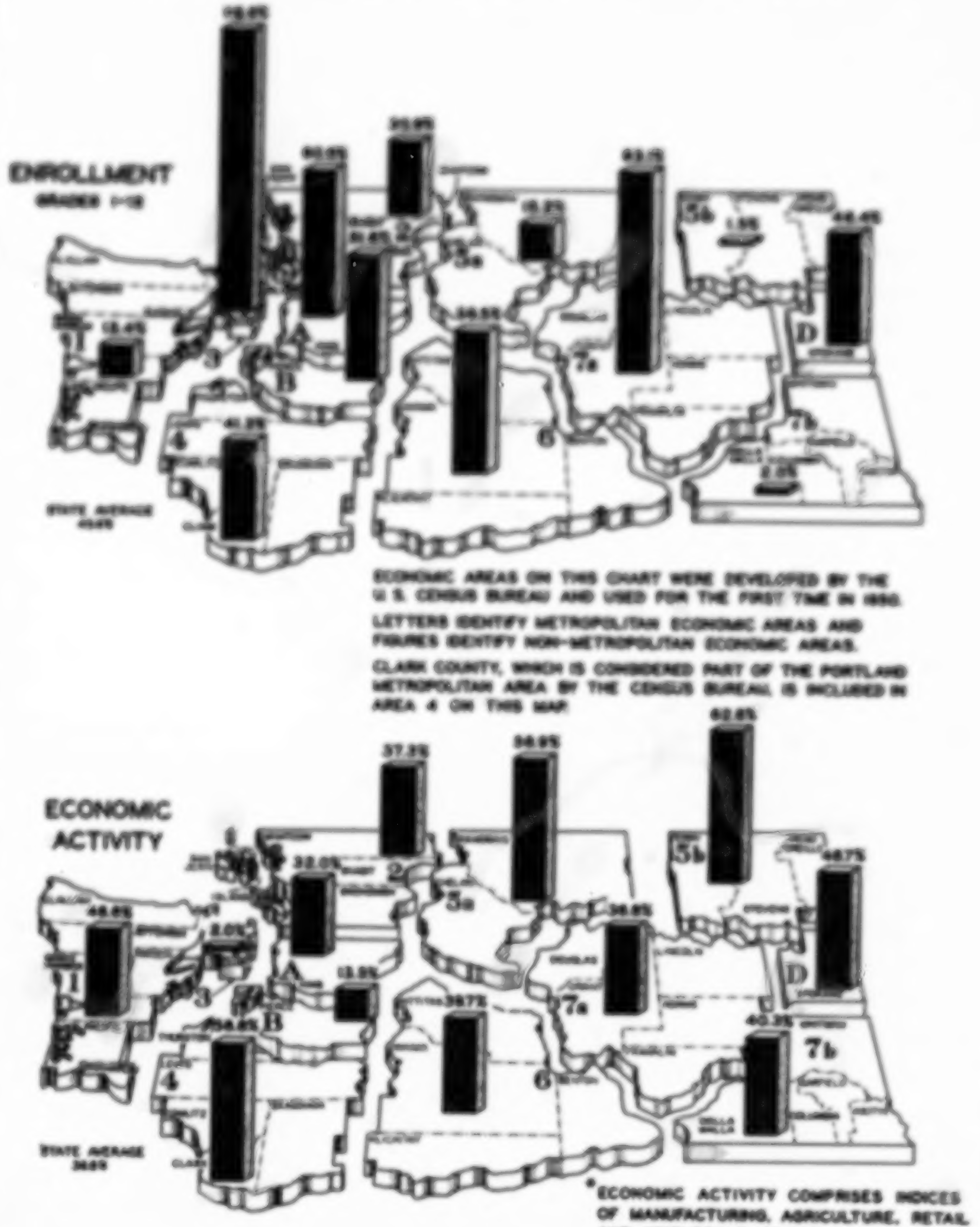
Educational change between 1939 and 1954 was 47.9 per cent in Western Washington and 40.9 per cent in Eastern Washington. Greatest relative educational change took place in Economic Area 3 (116.6 per cent) and least percentage increase was in Economic Area 5b (1.5 per cent). Absolute change in Western Washington during this period was 105,587 pupils, compared with an increase of 44,282 pupils in Eastern Washington. Greatest absolute increase in education took place in Metropolitan Area A (49,217 pupils), Economic Area 6 (20,925 pupils), Metropolitan Area B (16,465 pupils) and Economic Area 4 (15,035 pupils), while least absolute increase occurred in Economic Area 5b (105 pupils), Economic Area 7b (304 pupils), Economic Area 5a (2,153 pupils) and Economic Area 1 (3,162 pupils).

It is obvious from the foregoing discussion that the differential changes in enrollment among the various Economic Areas of the state do not show a clear and consistent relationship with economic activities between 1939 and 1954. Figure 2:7 displays striking instances of both positive and negative relationships. For example, Economic Area 3 (Kitsap County) shows an increase in enrollment of 117 per cent, but an increase in economic activity of only 2.0 per cent. The virtual stagnation in the economic index for this period can be attributed to a marked decline in both manufacturing and agricultural activity. The decline in the manufacturing category can be explained largely in terms of marked fluctuations in the volume of work in the Puget Sound Navy Yard. The decline in agriculture seems to be part of a statewide trend, although it is more pronounced in Kitsap County than in other Areas. On the other hand, Areas 5b and 7b show only a slight increase in enrollment, but a substantial increase in economic activity. In this connection, it should be pointed out that the total population growth in both of these Areas has been very small in the past five decades. The greatest increases in economic activity, for both Economic Areas 5b and 7b, occurred in manufacturing.

SUMMARY

This chapter has examined the diverse physical and socio-economic characteristics of the various areas within the state. Educational change has been discussed in relation to these underlying factors. The following paragraphs summarize some of the more outstanding features of this analysis.

SCHOOL ENROLLMENT & ECONOMIC ACTIVITY*
PERCENTAGE CHANGE
ECONOMIC AREAS: 1939 TO 1954


ENROLLMENT
GRADES 1-12
STATE AVERAGE
1
2
3
4
5a
5b
6
7a
7b
A
B
D
ECONOMIC
ACTIVITY
STATE AVERAGE
37.2%
62.6%
13.0%
40.3%

ECONOMIC AREAS ON THIS CHART WERE DEVELOPED BY THE U. S. CENSUS BUREAU AND USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS AND FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS.

CLARK COUNTY, WHICH IS CONSIDERED PART OF THE PORTLAND METROPOLITAN AREA BY THE CENSUS BUREAU, IS INCLUDED IN AREA 4 ON THIS MAP.

*ECONOMIC ACTIVITY COMPRISES INDICES OF MANUFACTURING, AGRICULTURE, RETAIL AND WHOLESALE TRADE.

Figure 2:7

The Cascade Mountain Range divides the state into two relatively distinct geographical areas with West and East portions of the state having significant variations in topography, climate, rainfall and other physical features.

In the adult population, substantial differences exist between males and females in educational attainment. For both males and females, the counties surrounding Puget Sound in Western Washington and the central, southcentral and eastern-most counties have generally higher levels of educational attainment.

The proportion enrolled of the state's population 14 through 17 years of age was much greater than that for the entire nation. Generally, the highest percentages were reported in both Metropolitan and Non-Metropolitan Areas. Except for Metropolitan Area B (Pierce County), the lowest percentages occurred in areas where agriculture is the primary economic pursuit.

A pattern similar to that of adult educational attainment was observed for rates of change in number of graduates of elementary and high schools. In 1957, Western Washington, especially the area around Puget Sound, not only produced more graduates of both elementary and secondary schools than did Eastern Washington, but also displayed a greater rate of change between 1950 and 1957. Within Eastern Washington, however, the southcentral portion experienced some of the highest rates of change in the state in number of graduates of both elementary and high schools. Rates of change for elementary school graduates were half again as great as those for secondary graduates, indicating heavier future enrollments in high schools.

Proportions of the adult population who are married tend to predominate in the Non-Metropolitan Economic Areas, while those who are single, widowed or divorced are proportionately larger in the Metropolitan Areas.

Highest median incomes were found in southcentral Washington and in Cowlitz and King Counties in Western Washington. Lowest median incomes occurred in the northeastern part of the state, and in Jefferson and San Juan Counties in Western Washington.

Highest proportions of the population 14 years of age and older in the labor force, as well as in the employed labor force, are found generally in areas displaying the most rapid rates of educational change as indicated by trends in graduation from elementary and high school. A similar distribution was observed for occupations requiring extensive training such as professional, technical and kindred workers and clerical, sales and kindred workers.

In most of Western Washington, more than one-fifth of the employed labor force is engaged in manufacturing, while in Eastern Washington, more than one-fifth of the employed labor force works in agriculture.

Economic activity, measured in per capita values of production, varies widely within the state. Between 1939 and 1954, an increase of almost 40 per cent has occurred, with manufacturing showing the largest rate of change, followed by wholesale and retail trade.

The relative extent of relationship between rates of change in economic activity and educational change was found to vary markedly among the Economic Areas.

CHAPTER 3

TRENDS IN POPULATION DISTRIBUTION AND EDUCATIONAL CHANGE

The preceding chapter emphasized characteristics of the physical and cultural environment in the various parts of the state. In this chapter, the growth and distribution of population and education are considered. Population concentration, as indicated by population density and urbanization, will be discussed — including an examination of long-term as well as recent developments. In addition, the historical and recent changes in education will be compared with those of population.

GROWTH OF POPULATION

The nation-wide population count made in 1950 by the United States Bureau of the Census reported 2,378,963 people in the state of Washington. Washington ranked twenty-third among the 48 states. Ten years earlier the population had been 1,736,191. By April 1, 1960, the population of the state had grown to approximately 2,824,000.[1] During the past 20 years Washington has added more than 1,000,000 people to its population.

Washington Territory, as it was organized by an act of Congress in 1853, included within its boundaries the present state of Washington, northern Idaho, and parts of Montana and Wyoming. In 1863, Washington Territory was reduced in area to the present state boundaries. When the 1870 decennial census was taken, Washington had a population of 23,955 — less than the present size of the city of Walla Walla. By 1880, the population had grown to 75,116 and in 1890, one year after Washington attained statehood, a population of 357,232 was enumerated. The largest population increment — 642,722 — occurred between 1940 and 1950 and the second largest increment — 623,887 — between 1900 and 1910. The greatest relative increase was 375.6 per cent, which took place between 1880 and 1890, whereas the lowest relative increase was 11.1 per cent, recorded between 1930 and 1940. The extraordinarily high rate (37.0 per cent) of population growth during World War II was in dramatic contrast to the retarded growth during the preceding decade. The rate of population increase in the state of Washington (37.0 per cent) was almost three times as great as the national rate of 14.5 per cent during the 1940-50 decade. The percentage change in the total population of the United States between 1940 and 1950 was twice that occurring between 1930 and 1940. In contrast, the rate of population increase in Washington was more than three times the rate of gain during the previous decade.

---

[1] According to the preliminary release of the 1960 decennial census, the population of the state of Washington was reported as 2,824,144.

ENROLLMENT GROWTH: 1900 TO 1957

Enrollment in public schools has increased approximately 350 per cent from 1900 to 1957. In 1900, there were 139,097 pupils enrolled in grades 1 through 12, compared with 551,692 in 1957.[2] The largest percentage change occurred during the 1900-1910 decade, when approximately 100,000 pupils were added to the public school enrollment — an increase of about 80 per cent. During the decade from 1930 to 1940, there was a decline in enrollment of almost 8 per cent — from 341,311 in 1930 to 314,783 in 1940. From 1940 to 1957, enrollment increased by 61.9 per cent, representing an addition of over 200,000 pupils to the public elementary and secondary schools in the state of Washington.

Although total enrollment in grades 1 through 12 has increased more than threefold during the 57 years since 1900, there have been striking differences in percentage change from decade to decade for grades 1 through 8 and 9 through 12. While enrollment in the first eight grades has increased by about 257 per cent since 1900, enrollment in grades 9 through 12 has increased by approximately 2,638 per cent. The largest percentage gain, 356 per cent, in grades 9-12 occurred during the decade from 1900 to 1910 — from 4,186 in 1900 to 19,928 in 1910. In the same period, enrollment in grades 1-8 grew from 110,918 in 1900 to 196,339 in 1910 — an increase of 69 per cent.

During the period from 1900 to 1957, decreases in enrollment occurred between 1930 and 1940 in grades 1-8 and between 1940 and 1950 in grades 9-12. In 1930, the enrollment in grades 1-8 was 255,883 -- compared with 212,399 in 1940, while enrollment in grades 9-12 increased -- from 85,428 to 102,384. From 1940 to 1950, enrollment in grades 9-12 declined -- from 102,384 to 97,485, while grades 1-8 increased -- from 215,515 to 312,684.

Since 1940, enrollment in grades 1-8 has increased — from 212,399 in 1940 to 419,404 in 1957 — a gain of almost 100 per cent. During the same period, enrollment in grades 9-12 also increased — from 102,384 to 132,231 — a contrasting gain of about 30 per cent.

DIFFERENTIAL TRENDS IN DECENNIAL POPULATION GROWTH: 1900 TO 1960

Between 1900 and the present, considerable change has taken place in size of population residing in various areas of the state. Most of the Economic Areas have gained in population with each passing decade, although rates of change have varied widely, not only for a specific area, but also during certain periods. (Table 3:I) A few areas — Economic Area 1 in Western Washington and Economic Areas 5b, 7a and 7b in Eastern Washington -- have declined from time to time.

In all Economic Areas, the largest relative population increases since 1900 occurred during the 1900 to 1910 decade. The state's population more than doubled during these years — from 518,103 in 1900 to 1,141,990 in 1910, representing a gain of 623,887 or 120.4 per

---

[2] Enrollment figures cited throughout this chapter refer to data for the academic year.

TABLE 3:1

Population Trends by Counties and Economic Areas

State of Washington: 1900 to 1960

County and Economic Area	1960*	1950	1940	1930	1920	1910	1900
State	2,824,144	2,378,963	1,736,191	1,563,396	1,356,621	1,141,990	518,103
West	2,013,507	1,679,678	1,216,529	1,103,899	919,430	732,291	326,590
East	810,637	699,285	519,662	459,497	437,191	409,699	191,513
Area 1	125,654	127,073	115,750	117,669	85,952	71,655	39,051
Grays Harbor	53,707	53,644	53,166	59,982	44,745	35,590	15,124
Clallam	29,434	26,396	21,848	20,449	11,368	6,755	5,603
Pacific	14,537	16,558	15,928	14,970	14,891	12,532	5,983
Mason	16,042	15,022	11,603	10,060	4,919	5,156	3,810
Jefferson	8,530	11,618	8,918	8,346	6,557	8,337	5,712
Wahkiakum	3,404	3,835	4,286	3,862	3,472	3,285	2,819
Area 2	314,054	235,910	196,014	181,597	160,757	146,268	67,136
Snohomish	171,085	111,580	88,754	78,861	67,690	59,209	23,950
Whatcom	69,764	66,733	60,355	59,128	50,600	49,511	24,116
Skagit	50,910	43,273	37,650	35,142	33,373	29,241	14,272
Island	19,473	11,079	6,098	5,369	5,489	4,704	1,870
San Juan	2,822	3,245	3,157	3,097	3,605	3,603	2,928
Area 3 & A & B	1,324,856	1,084,592	731,448	658,135	566,562	423,097	172,335
King (A)	925,693	732,992	504,980	463,517	389,273	284,638	110,053
Pierce (B)	318,258	275,876	182,081	163,842	144,127	120,812	55,515
Kitsap (3)	80,905	75,724	44,387	30,776	33,162	17,647	6,767
Area 4 & C	248,943	232,103	173,318	146,498	106,159	91,271	48,068
Clark (C)	92,204	85,307	49,852	40,316	32,805	26,115	13,419
Lewis	41,562	43,755	41,393	40,034	36,840	32,127	15,157
Thurston	54,476	44,884	37,285	31,351	22,366	17,581	9,927
Cowlitz	55,576	53,369	40,155	31,906	11,791	12,561	7,877
Skamania	5,125	4,788	4,633	2,891	2,357	2,887	1,688
Area 5a	66,191	68,432	58,958	50,153	38,000	27,991	8,620
Chelan	40,596	39,301	34,412	31,634	20,906	15,104	3,931
Okanogan	25,595	29,131	24,546	18,519	17,094	12,887	4,689
Area 5b	29,611	30,089	31,132	29,997	33,111	30,097	15,105
Stevens	18,901	18,580	19,275	18,550	21,605	25,297	10,543
Pend Oreille	6,845	7,413	7,156	7,155	6,363	...	...
Ferry	3,865	4,096	4,701	4,292	5,143	4,800	4,562
Area 6	239,051	221,377	142,659	116,333	101,618	78,387	29,573
Yakima	143,632	135,723	99,019	77,402	63,710	41,709	13,462
Benton	61,793	51,370	12,053	10,952	10,903	7,937	...
Kittitas	20,360	22,235	20,230	18,154	17,737	18,561	9,704
Klickitat	13,266	12,049	11,357	9,825	9,268	10,180	6,407
Area 7a	104,720	66,280	47,196	38,959	47,804	51,537	22,221
Douglas	14,792	10,817	8,651	7,561	9,392	9,227	4,926
Lincoln	10,888	10,970	11,361	11,876	15,141	17,539	11,969
Adams	9,823	6,584	6,209	7,719	9,623	10,920	4,840
Franklin	23,093	13,563	6,307	6,137	5,877	5,153	486
Grant	46,124	24,346	14,668	5,666	7,771	8,698	...
Area 7b & D	371,064	313,107	239,717	224,055	216,658	221,687	115,994
Spokane (D)	277,745	221,561	164,652	150,477	141,289	139,404	57,542
Whitman	31,079	32,469	27,221	28,014	31,323	33,280	25,360
Walla Walla	41,983	40,135	30,547	28,441	27,539	31,931	18,680
Asotin	12,785	10,878	8,365	8,136	6,539	5,831	3,366
Columbia	4,529	4,860	5,549	5,325	6,093	7,042	7,128
Garfield	2,943	3,204	3,383	3,662	3,875	4,199	3,918

*Preliminary figures from April 1, 1960 enumeration by United States Bureau of the Census

Note: Benton County organized from parts of Klickitat and Yakima Counties in 1905. Grant County organized from part of Douglas County in 1909. Pend Oreille County organized from part of Stevens County in 1911.

cent. Relative increases ranged from 40.8 per cent in Economic Area 7b to 224.7 per cent in Economic Area 5a. Highest rates of change occurred in Economic Areas 5a, 6, 3 and 7a, and in Metropolitan Areas A and D. In addition to Area 7b, only three Areas -- 1, 4 and 5b — failed to gain more than 100.0 per cent in population during this period.

Many parts of the state experienced their lowest rates of population increase between 1930 and 1940. For the entire state, the population gain was only 172,795 or 11.1 per cent. This was the smallest relative decennial increase in the state's history. During this decade of slow change, the rates of growth for Economic Areas 2, 5b and 7a, and for Metropolitan Areas A and B were the smallest ever recorded. These relative gains ranged from 11.1 per cent in Metropolitan Area B to 3.8 per cent in Economic Area 5b. One area — Metropolitan Area D, with 1.4 per cent — had its smallest relative increase in the 1910-1920 decade. Two areas — Economic Area 1 (9.8 per cent) and Economic Area 5a (16.1) -- showed smallest relative gains between 1940 and 1950. Smallest rates of increase occurred between 1950 and 1960 in Economic Areas 3, 4, 6 and 7b, with respective percentages of 6.8, 7.3, 8.0 and 1.9. (Table 3:I)

None of the Metropolitan Areas have ever decreased in population in any decennial period. However, several of the Non-Metropolitan Areas have lost population — in at least one decade. Between 1910 and 1920, Economic Areas 7a (-7.2 per cent) and 7b (-8.4 per cent) showed respective population decreases of 3,733 and 6,914. During the 1920-1930 decade, Economic Areas 7a and 7b again lost population — at rates of -18.5 per cent and -2.4 per cent, respectively, while Economic Area 3 (-7.2 per cent) and Economic Area 5b (-9.4 per cent) also declined. Economic Area 1, with a population decrease at a rate of -1.6 per cent, was the only declining area between 1930 and 1940. From 1940 to 1950, only Economic Area 5b (-3.4 per cent) decreased in population. During the past decade, based on preliminary results of the 1960 census, Economic Areas 1 (-1.1 per cent), 5a (-3.3 per cent) and 5b (-1.6 per cent) had slight declines in population.

According to preliminary 1960 population figures, the total population of the state has increased 18.7 per cent since 1950. Nine counties -- Adams, Benton, Douglas, Franklin, Grant, Island, King, Snohomish and Spokane — reveal 20.0 per cent or larger increases during the decade. (Figure 3:1) Several counties experienced relatively small rates of population change, while, of the 13 counties which decreased in population, five — Jefferson, Okanogan, Pacific, San Juan and Wahkiakum -- lost 10.0 per cent or more.

Although the state of Washington gained more than 640,000 people between 1940 and 1950, there were six counties -- Ferry, Columbia, Wahkiakum, Garfield, Stevens and Lincoln — that actually declined in population. At the other extreme, Benton County increased by 326.2 per cent and Franklin County, by 115.0 per cent.

Between 1930 and 1940, five counties, Adams, Grays Harbor, Garfield, Lincoln and Whitman recorded population decreases. Pend Oreille County remained virtually stationary, while seven other counties increased less than 5.0 per cent. Skamania with 60.3 per cent, and Okanogan with 32.5 per cent, had the largest proportional gains.

During the 1920-30 decade, twelve counties lost population, although the state in-

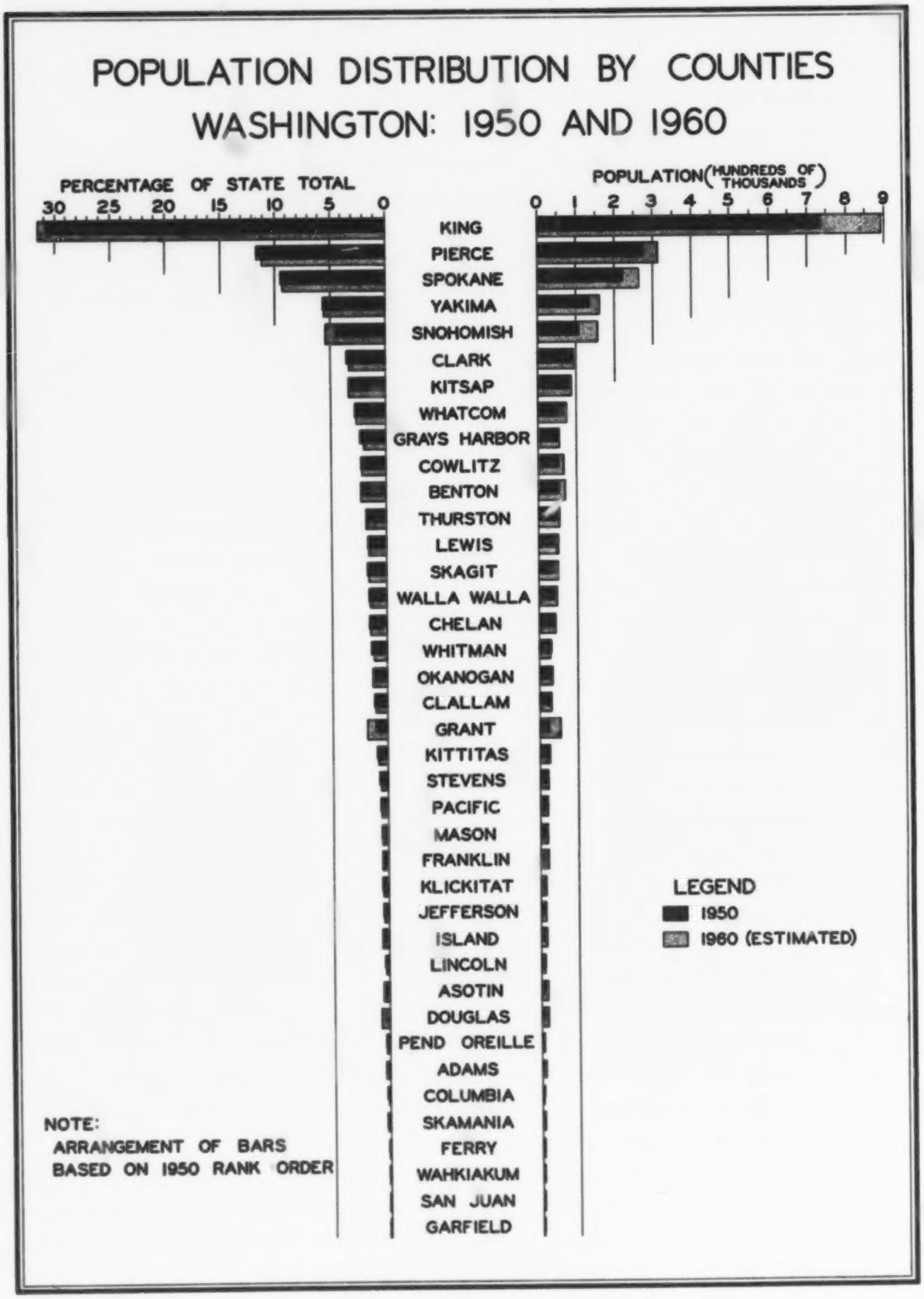

POPULATION DISTRIBUTION BY COUNTIES
WASHINGTON: 1950 AND 1960
PERCENTAGE OF STATE TOTAL
30 25 20 15 10 5 0
POPULATION (HUNDREDS OF THOUSANDS)
0 1 2 3 4 5 6 7 8 9
KING
PIERCE
SPOKANE
YAKIMA
SNOHOMISH
CLARK
KITSAP
WHATCOM
GRAYS HARBOR
COWLITZ
BENTON
THURSTON
LEWIS
SKAGIT
WALLA WALLA
CHELAN
WHITMAN
OKANOGAN
CLALLAM
GRANT
KITTITAS
STEVENS
PACIFIC
MASON
FRANKLIN
KLICKITAT
JEFFERSON
ISLAND
LINCOLN
ASOTIN
DOUGLAS
PEND OREILLE
ADAMS
COLUMBIA
SKAMANIA
FERRY
WAHKIAKUM
SAN JUAN
GARFIELD
LEGEND
■ 1950
▨ 1960 (ESTIMATED)
NOTE:
ARRANGEMENT OF BARS
BASED ON 1950 RANK ORDER

Figure 3:1

creased 206,775. Garfield County, which declined 5.5 per cent between 1920 and 1930, also recorded decreases between 1930 and 1940 and between 1940 and 1950. In addition, Ferry, Stevens, Lincoln and Columbia Counties manifest a relatively consistent tendency to decline in population or to increase only slightly. Seven counties — Chelan, Clallam, Cowlitz, Grays Harbor, Jefferson, Mason and Thurston — gained 25.0 per cent or more.

From 1910 to 1920, the population of the state grew 214,631 (18.8 per cent). Seven counties — Benton, Chelan, Clallam, King, Kitsap, Pacific and Yakima — showed relatively large population gains, with percentage changes ranging from 32.6 in Pacific County to 87.9 per cent in Kitsap County. Thirteen counties declined in population, with Adams, Columbia, Grant, Jefferson, Lincoln, Skamania and Walla Walla losing 10.0 per cent or more in number of residents.

The state's population first surpassed one million between 1900 and 1910. During this period, there were 18 counties which increased more than 100.0 per cent. Relative gains in county populations were greatest in Chelan (284.2 per cent), Okanogan (174.8 per cent) and Franklin (960.3 per cent). Ferry and Garfield Counties showed slight increases, while the remaining counties increased, ranging from 16.5 per cent in Wahkiakum to 94.6 per cent in Clark. One county, Columbia, actually declined a little in population (-1.2 per cent).

DIFFERENTIALS IN POPULATION DISTRIBUTION: 1900 TO 1960

The population of the state of Washington is very unevenly distributed. At one extreme, vast areas are entirely uninhabited, while at the other extreme, there are areas of heavy concentration with densities of many thousands of people per square mile.

The western third of the state has always had a larger population than the eastern two-thirds. In 1950, the population of the 19 counties in Western Washington was 1,679,678 — compared to 699,285 in the 20 counties in Eastern Washington. Population density was 67.7 persons per square mile in Western Washington and 16.7 persons per square mile in Eastern Washington. Preliminary figures for the 1960 census show a population of 2,013,507 in Western Washington, compared to 810,637 in Eastern Washington, with respective population densities of 81.1 and 19.3 persons per square mile.

There is an extremely heavy concentration of population in the Puget Sound trough, particularly in King, Pierce, Snohomish and Kitsap Counties. There are lesser concentrations to the north and to the south. King County now (1960) has a population of more than 925,000 — approximately 33.0 per cent of the state's preliminary total of about 2,824,000. When the populations of Pierce, Snohomish and Kitsap Counties are combined with that of King County, the total is about 1,496,000 — 53.0 per cent of the state's population.

Relatively dense population distributions also are found in and around the city of Spokane, the Yakima Valley, the Richland-Pasco-Kennewick area, the Wenatchee Valley, and the Aberdeen-Hoquiam area. Large uninhabited or very sparsely populated areas are to be found along the entire length of the Cascade Range, on the Olympic Peninsula and in parts of Okanogan, Kittitas, Yakima and Klickitat Counties.

Population Distribution Pattern. The basic pattern of population distribution in the state of Washington was well established by 1900. At that time there were 518,103 people living in the state as compared to 2,378,963 in 1950 and a provisional population figure of 2,824,144 in 1960. Most of the larger cities and a great many smaller towns had come into existence by 1900. The clustering of population in the Puget Sound trough, in the Grays Harbor area, along the lower Columbia River, in Spokane County and in other counties in the eastern part of the state was very apparent. In the central part of the state, most notably in the Wenatchee, Okanogan, Columbia and Yakima Valleys, population was relatively sparse. The influx of great numbers of people into these areas depended largely on developments in irrigation and hydroelectric power. In fact, it was not until after 1940 that a definite rise occurred in the population of the Richland-Pasco-Kennewick areas of Benton and Franklin Counties and in certain parts of Grant County.

In 1900, Western Washington included a population of 326,590 compared to 191,513 in Eastern Washington. Only one county in the state had a population greater than 100,000 -- King County (Metropolitan Area A), with 110,053 residents. Metropolitan Area B (55,515) and Economic Area 2 (67,136) were other areas with relatively large populations in Western Washington, while, in Eastern Washington, large populations were found in Metropolitan Area D (57,542) and Economic Area 7b (58,542).

In 1930, Western Washington had grown to more than one million (1,103,899), compared to a population of 459,497 in Eastern Washington. Only Economic Area 3 in Western Washington and Economic Areas 5a, 5b, 7a and 7b in Eastern Washington had less than 100,000 population.

In 1960, according to preliminary figures, Western Washington's population is greater than two million (2,013,507), compared to a population of 810,637 in Eastern Washington. Economic Area 3 and Economic Areas 5a, 5b and 7b still have less than 100,000 population.

POPULATION DENSITY: 1900 TO 1960

A useful index of population distribution is population density — usually expressed as the average number of people per unit of territory. The thirty-nine counties range in area from 5,294 square miles in Okanogan County to 172 square miles in San Juan County. Yakima County ranks second in size with 4,273 square miles, while Chelan and Grant rank third and fourth, with 2,931 and 2,691 square miles, respectively. Besides San Juan County, other counties of relatively small size are Island (206), Wahkiakum (269) and Kitsap (402).

Population density in the entire state was 42.3 in 1960 and 35.6 in 1950, while there were only 7.8 persons per square mile in 1900. King County (Metropolitan Area A), with more than 30 per cent of the state's population in 1960, comprises only 3.2 per cent (2,134 square miles) of the state's territory, representing a population density of 433.8. Metropolitan Area B (Pierce County) and D (Spokane County), with respective population densities of 189.9 and 157.5 in 1960, rank second and fourth. Economic Area 3 ranks third in density with 201.3 persons per square mile. Economic Areas 2 and 4, with densities of 49.3 and

37.6, rank fifth and sixth, respectively. Population concentration in Eastern Washington, outside of Spokane County, is greatest in southcentral and southeastern Washington, where Economic Areas 6 and 7b have densities of 23.3 and 16.5 persons per square mile, respectively. Least population concentration is found in Economic Areas 5a, 5b and 7a in the northcentral, northeastern and central parts of the state. The most sparsely populated counties continue to be Ferry, with 1.8 persons per square mile, Skamania (3.1), Garfield (4.1), Jefferson (4.7), Lincoln (4.7), Okanogan (4.8), Pend Oreille (4.9), Adams (5.2) and Columbia (5.3).

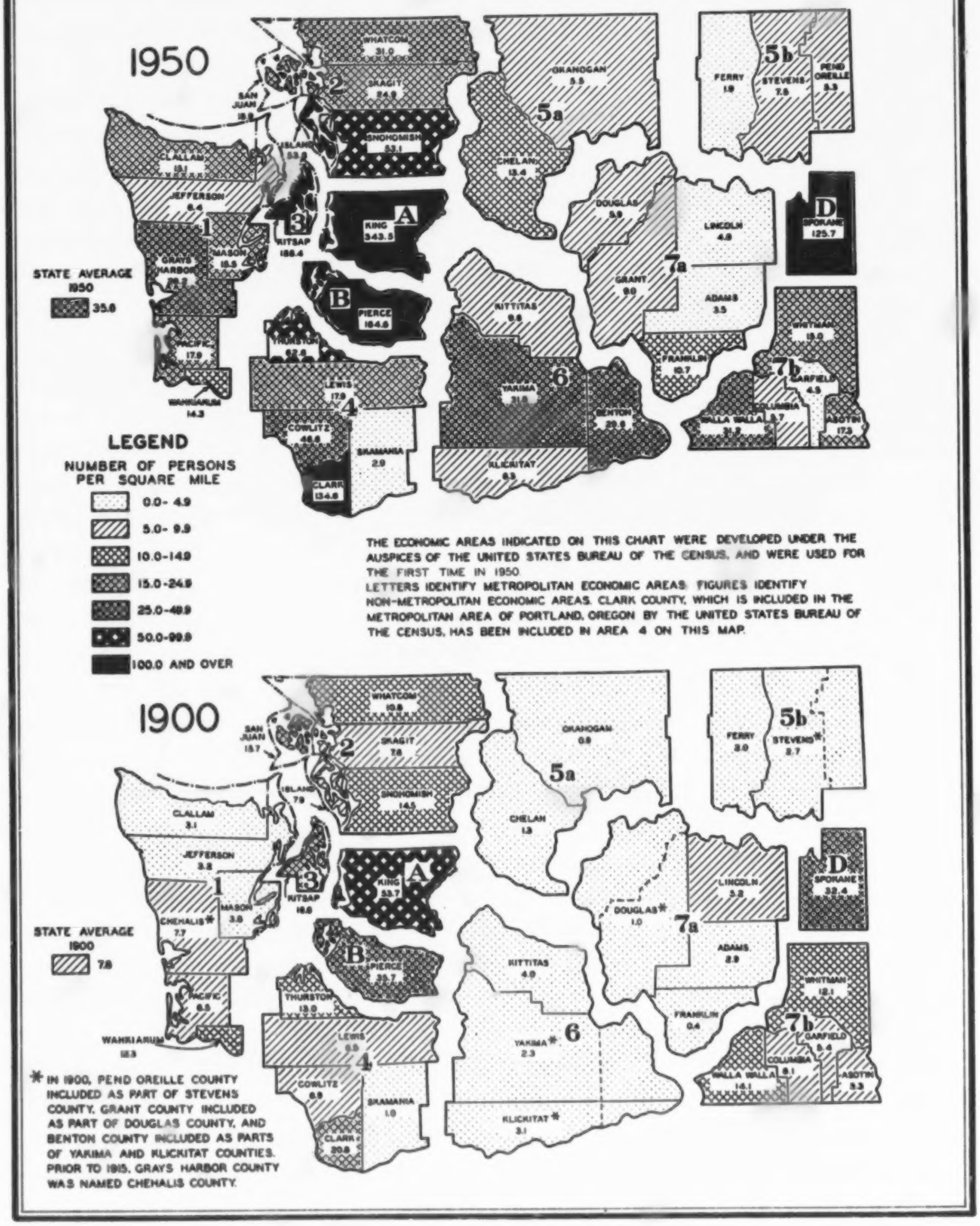
Between 1900 and 1950, population density in the entire state increased about fivefold. (Figure 3:2) Among the Economic Areas, relative population densities show several shifts in population distribution. Metropolitan Area A (King County) and Economic Areas 2, 1 and 7b retained their rankings of first, fifth, eighth and eleventh, respectively, during the half century. Metropolitan Area B (Pierce County) changed from second to third most densely populated, when Economic Area 3 (Kitsap County) moved from fourth in 1900 to second in 1950. Metropolitan Area D (Spokane County) ranked third in population density in 1900 and fourth in 1950. Economic Area 7b, which had been sixth in 1900, decreased in relative concentration to rank ninth in 1950, and was replaced by Economic Area 4, which had ranked seventh in 1900. Economic Area 6 shifted from ninth in 1900 to become the seventh most densely populated Economic Area in the state. Economic Areas 5a and 5b exchanged rankings of twelfth and tenth, respectively, during this time.

Figure 3:2 portrays population density in the 39 counties of the state in 1950 and 1900. In 1950, five counties had densities of more than 100.0 persons per square mile -- King (343.5), Kitsap (188.4), Pierce (164.6), Clark (134.8) and Spokane (125.7). Thurston (62.6), Island (53.8) and Snohomish (53.1) ranked next in population density. There were five counties with less than 5 people per square mile. In 1940, four counties had densities of more than 100.0: King County with 236.4 persons per square mile, ranked first in density, followed by Kitsap (110.4), Pierce (108.4) and Spokane (93.4). There were eight counties with densities of less than 5.0. In 1920, only King County (184.4) had more than 100.0 people per square mile. Seven counties had fewer than 5 persons per square mile. This reflects a downward trend in population for a few counties between 1920 and 1950. The population density pattern for 1900 is in marked contrast to that for 1950. The highest density in 1900 was 53.7 in King County. Pierce County with 35.7 ranked second, and Spokane County with 32.4, third. An area in Central Washington, which now comprises Grant, Douglas, and Okanogan Counties, had a density of less than one person per square mile in 1900.

DIFFERENTIAL DECENNIAL EDUCATIONAL CHANGE: 1900 TO 1957

It was pointed out earlier in this chapter that enrollment in grades 1 through 12 in the entire state grew from 122,225 in 1900 to 551,692 in 1957. Enrollment in 1900 consisted of 117,395 pupils in grades 1 through 8 and only 4,830 (3.6 per cent of the total) in grades 9 through 12. In 1957, the total enrollment included 419,461 pupils in grades 1 through 8 and 132,231 (24.0 per cent of the total) in grades 9 through 12.

POPULATION DENSITY BY COUNTIES WASHINGTON: 1900 AND 1950


1950
WHATCOM 31.0
SKAGIT 24.9
SAN JUAN 15.9
SNOHOMISH 53.1
ISLAND 33.9
CLALLAM 19.1
JEFFERSON 6.4
MASON 15.5
GRAYS HARBOR 28.2
KITSAP 188.4
KING 343.5
PIERCE 164.8
THURSTON 62.6
PACIFIC 17.9
WAHKIAKUM 14.3
LEWIS 17.9
COWLITZ 46.6
CLARK 134.6
SKAMANIA 2.9
OKANOGAN 5.5
CHELAN 13.4
FERRY 1.9
STEVENS 7.5
PEND OREILLE 3.3
DOUGLAS 5.9
LINCOLN 4.8
GRANT 9.0
ADAMS 3.5
SPOKANE 125.7
KITTITAS 9.6
YAKIMA 31.8
BENTON 29.6
KLICKITAT 6.3
FRANKLIN 10.7
WHITMAN 19.0
GARFIELD 4.5
COLUMBIA 5.7
WALLA WALLA 31.2
ASOTIN 17.3
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE AVERAGE 1950
35.6
LEGEND
NUMBER OF PERSONS PER SQUARE MILE
0.0- 4.9
5.0- 9.9
10.0-14.9
15.0-24.9
25.0-49.9
50.0-99.9
100.0 AND OVER
1900
WHATCOM 10.8
SKAGIT 7.8
SAN JUAN 15.7
SNOHOMISH 14.5
ISLAND 7.9
CLALLAM 3.1
JEFFERSON 3.2
MASON 3.6
CHEHALIS* 7.7
KITSAP 16.6
KING 53.7
PIERCE 35.7
THURSTON 13.0
PACIFIC 6.5
WAHKIAKUM 12.3
LEWIS 9.5
COWLITZ 6.9
CLARK 20.8
SKAMANIA 1.0
OKANOGAN 0.9
CHELAN 1.3
FERRY 2.0
STEVENS* 2.7
DOUGLAS* 1.0
LINCOLN 5.2
ADAMS 2.9
SPOKANE 32.4
KITTITAS 4.0
YAKIMA* 2.3
KLICKITAT* 3.1
FRANKLIN 0.4
WHITMAN 12.1
GARFIELD 5.4
COLUMBIA 6.1
WALLA WALLA 14.1
ASOTIN 5.3
STATE AVERAGE 1900
7.8

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS: FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

* IN 1900, PEND OREILLE COUNTY INCLUDED AS PART OF STEVENS COUNTY, GRANT COUNTY INCLUDED AS PART OF DOUGLAS COUNTY, AND BENTON COUNTY INCLUDED AS PARTS OF YAKIMA AND KLICKITAT COUNTIES. PRIOR TO 1915, GRAYS HARBOR COUNTY WAS NAMED CHEHALIS COUNTY.

Figure 3:2

In 1900, there were 73,392 pupils enrolled in grades 1 through 12 in Western Washington, compared to 48,833 in Eastern Washington. Among the Economic Areas, enrollment ranged from 20,225 in Metropolitan Area A (King County) to 1,681 in Economic Area 5a. Economic Areas 2 (17,080 pupils), 7b (15,979) and 4 (13,811) ranked second, third and fourth, respectively, in size of enrollment, closely followed by Metropolitan Areas D and B, with respective enrollments of 12,919 and 11,930. In addition to 5a, comparatively small enrollments occurred in Economic Area 3 (1,756 pupils) and 5b (3,319).

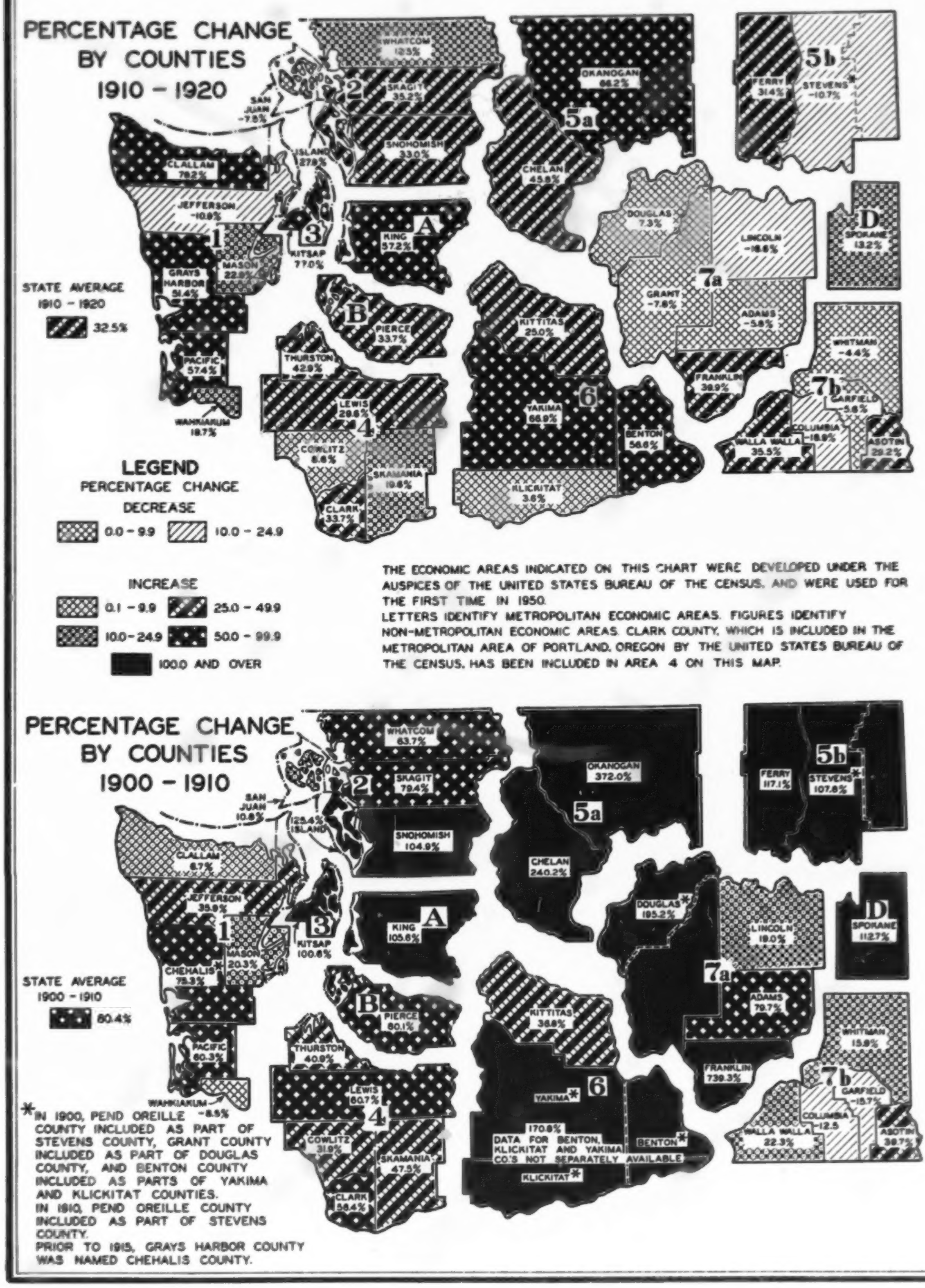
Between 1900 and 1910, state enrollment in grades 1 through 12 increased 80.4 per cent -- to 220,461 pupils. Relative change was largest in Eastern Washington, where enrollment change was 83.6 per cent, compared to 78.2 per cent in Western Washington. (Figure 3:3) Greatest relative changes occurred in Economic Areas 5a (286.5 per cent) and 6 (125.8 per cent), and Metropolitan Areas D (112.7 per cent) and A (105.6 per cent). Smallest percentage increases occurred in Economic Area 4 (50.6), Economic Area 1 (46.7) and Economic Area 7b (13.3). The low relative change in Economic Area 7b was partly due to enrollment decrease in Columbia and Garfield Counties, which showed relative declines of -12.5 per cent and -15.7 per cent, respectively. One other county, Wahkiakum, decreased (-8.5 per cent) in enrollment during this period.

From 1910 to 1920, enrollment in the state increased almost one-third (32.5 per cent). Western Washington grew at twice the rate of Eastern Washington, in contrast to the preceding decade. Large gains were not so widespread nor so great as they were ten years earlier. Relative change ranged from 77.0 per cent in Economic Area 3, to 8.7 per cent in Economic Area 7b. One Economic Area, 7a, showed an enrollment loss (-4.1 per cent) between 1910 and 1920. Metropolitan Area A (57.2 per cent) and Economic Areas 5a (54.5 per cent) and 6 (49.1 per cent) ranked second, third and fourth, respectively, in rate of increase. Least percentage increases took place in Economic Area 5b (18.8), Metropolitan Area D (13.2) and Economic Area 7b (8.1). Eight counties declined during the decade, with percentage losses ranging from -4.4 in Whitman County to -18.9 in Columbia County.

State enrollment in grades 1 through 12 increased from 292,076 in 1920 to 342,814 in 1930, representing a decennial increase of 17.4 per cent. Contrasting increases occurred in Western and Eastern Washington -- the rate of change in the West was 25.7 per cent, compared to 3.2 per cent in the East. Largest relative gains occurred in Economic Area 5a (41.4 per cent), Economic Area 1 (37.8 per cent), Metropolitan Area A (36.6 per cent) and Economic Area 4 (30.9 per cent). Several areas in Eastern Washington declined during the decade, including Metropolitan Area D (-1.0 per cent), Economic Area 5b (-9.4 per cent), Economic Area 7b (-10.0 per cent) and Economic Area 7a (-17.4 per cent). Relative change was greatest in Western Washington in Cowlitz and Mason Counties, followed by counties of the Olympic Peninsula and King and Thurston Counties. In Eastern Washington, only two counties, Chelan (71.0 per cent) and Yakima (27.2 per cent), showed appreciable increase, while thirteen counties declined at rates ranging from -1.0 per cent in Spokane County to -25.6 per cent in contiguous Adams County.

The 1930 to 1940 decade represents the low point in educational change in the state.

ENROLLMENT CHANGE, GRADES 1 TO 12 WASHINGTON: 1900 - 1910 AND 1910 - 1920


PERCENTAGE CHANGE BY COUNTIES 1910 - 1920
WHATCOM 12.5%
SKAGIT 35.2%
SAN JUAN -7.5%
SNOHOMISH 33.0%
ISLAND 27.9%
CLALLAM 78.2%
JEFFERSON -10.9%
KITSAP 77.0%
KING 57.2%
MASON 22.9%
GRAYS HARBOR 51.4%
PIERCE 33.7%
THURSTON 42.9%
PACIFIC 57.4%
LEWIS 29.6%
WAHKIAKUM 18.7%
COWLITZ 6.6%
SKAMANIA 19.6%
CLARK 33.7%
OKANOGAN 66.2%
CHELAN 45.8%
FERRY 31.4%
STEVENS* -10.7%
DOUGLAS 7.3%
LINCOLN -16.6%
SPOKANE 13.2%
GRANT -7.8%
ADAMS -5.8%
WHITMAN -4.4%
KITTITAS 25.0%
YAKIMA 66.9%
BENTON 56.6%
FRANKLIN 38.9%
GARFIELD -5.6%
COLUMBIA -18.9%
WALLA WALLA 35.5%
ASOTIN 29.2%
KLICKITAT 3.6%
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE AVERAGE 1910 - 1920
32.5%
LEGEND
PERCENTAGE CHANGE
DECREASE
0.0 - 9.9
10.0 - 24.9
INCREASE
0.1 - 9.9
25.0 - 49.9
10.0 - 24.9
50.0 - 99.9
100.0 AND OVER
PERCENTAGE CHANGE BY COUNTIES 1900 - 1910
WHATCOM 63.7%
SKAGIT 79.4%
SAN JUAN 10.8%
125.4% ISLAND
SNOHOMISH 104.9%
CLALLAM 6.7%
JEFFERSON 35.9%
MASON 20.3%
KITSAP 100.6%
KING 105.6%
CHEHALIS* 75.3%
PIERCE 80.1%
THURSTON 40.9%
PACIFIC 60.3%
LEWIS 60.7%
WAHKIAKUM -8.5%
COWLITZ 31.9%
SKAMANIA 47.5%
CLARK 58.4%
OKANOGAN 372.0%
CHELAN 240.2%
FERRY 117.1%
STEVENS* 107.8%
DOUGLAS* 195.2%
LINCOLN 19.0%
SPOKANE 112.7%
ADAMS 79.7%
KITTITAS 36.8%
WHITMAN 15.9%
FRANKLIN 739.3%
YAKIMA*
BENTON*
KLICKITAT*
GARFIELD -15.7%
COLUMBIA -12.5
WALLA WALLA 22.3%
ASOTIN 39.7%
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE AVERAGE 1900 - 1910
80.4%

170.8% DATA FOR BENTON, KLICKITAT AND YAKIMA CO.'S NOT SEPARATELY AVAILABLE

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.
LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

*IN 1900, PEND OREILLE COUNTY INCLUDED AS PART OF STEVENS COUNTY, GRANT COUNTY INCLUDED AS PART OF DOUGLAS COUNTY, AND BENTON COUNTY INCLUDED AS PARTS OF YAKIMA AND KLICKITAT COUNTIES.
IN 1910, PEND OREILLE COUNTY INCLUDED AS PART OF STEVENS COUNTY.
PRIOR TO 1915, GRAYS HARBOR COUNTY WAS NAMED CHEHALIS COUNTY.

Figure 3:3

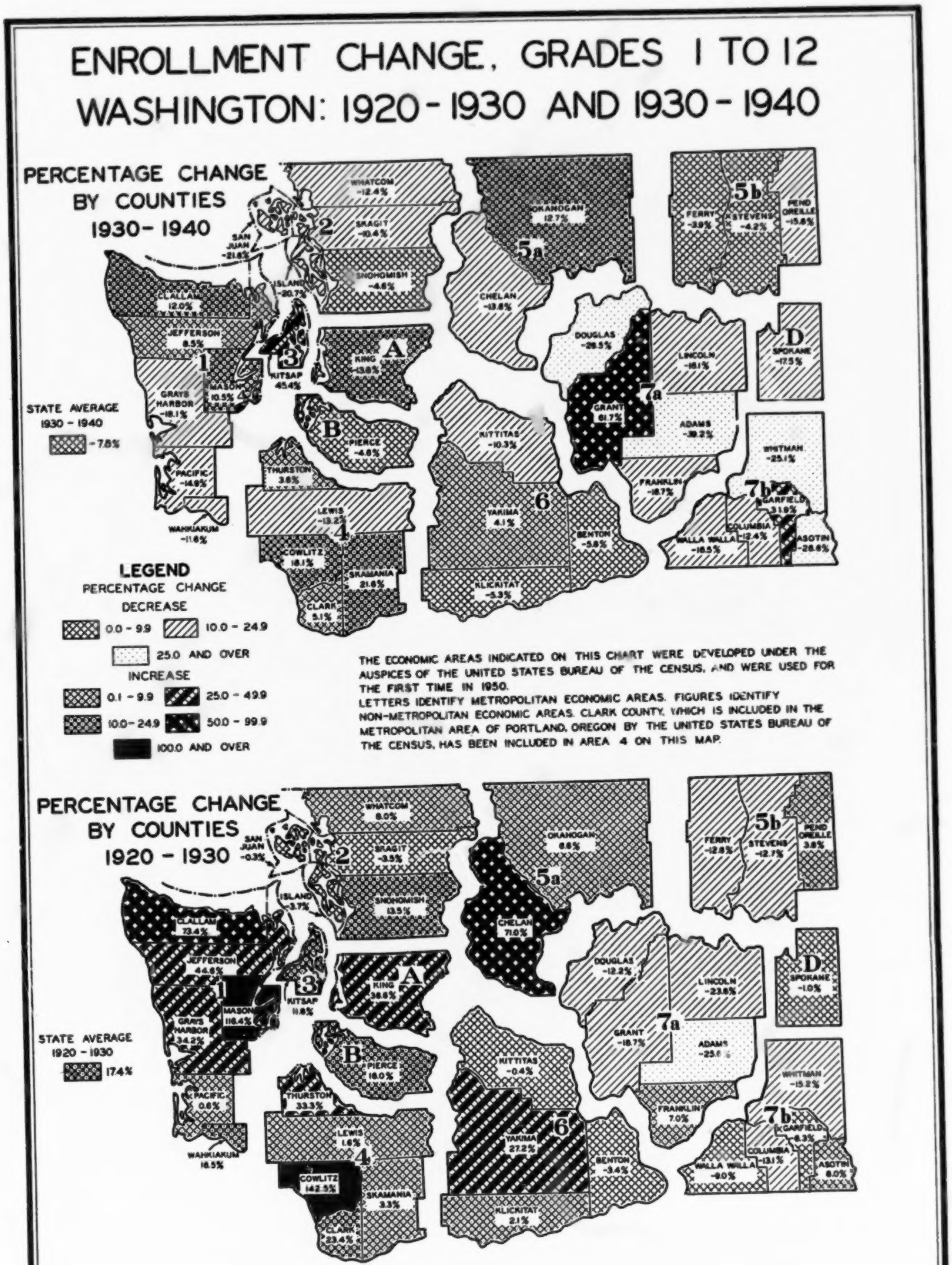
Total enrollment decreased -7.8 per cent — from 342,814 in 1930 to 316,265 in 1940. In general, elementary school enrollment declined, rather than high school enrollment. Grades 1 through 8 decreased -14.6 per cent, while grades 9 through 12 increased 11.3 per cent. From 1930 to 1940, only three Economic Areas increased in total enrollment — Areas 3 and 4 in Western Washington and Area 6 in Eastern Washington. Percentage decreases ranged from -4.0 in Metropolitan Area B to -21.9 per cent in Economic Area 7b. Western Washington decreased -6.6 per cent, while Eastern Washington decreased -10.2 per cent. Decreasing enrollment in elementary schools during this period reflects the long-term declining trend in fertility, which did not begin its recent upswing until shortly before World War II.

From 1940 to 1950, almost entirely due to an increase in elementary enrollment, the total number of pupils grew — from 316,265 in 1940 to 412,407 in 1950 — a relative increase of 30.4 per cent. During this period, high school enrollment declined -1.0 per cent, while grades 1 through 8 gained 45.1 per cent. Total enrollment showed increases ranging from 55.2 per cent in Economic Area 7a to 5.2 per cent in Economic Area 7b. Only one Economic Area, 5b (-1.3 per cent), decreased. Three contiguous counties with percentage increases greater than 100.0 per cent — Benton (314.9 per cent), Franklin (116.8 per cent) and Grant (111.8 per cent) — reflect developments in the Columbia Basin Project and the Hanford Atomic Products Operation. Other counties in Eastern Washington with relatively large enrollment gains included Douglas (42.5 per cent), Yakima (33.5 per cent), Spokane (29.2 per cent) and Asotin (27.3 per cent). The counties surrounding Puget Sound all showed large percentage increases, ranging from 57.7 per cent in Island County to 16.4 per cent in Thurston County. Clark and Cowlitz Counties also grew rapidly between 1940 and 1950. Seven counties declined in enrollment during this decade, one in southwestern Washington and six in the northeastern and southeastern parts of the state.

Enrollment data for the most recent period, 1950 to 1957, indicate a continuing upward trend. The pattern of increase is much like that of the 1940's. The state's enrollment in grades 1 through 12 increased — from 412,407 pupils in 1950 to 551,692 in 1957 — a relative gain of 33.8 per cent. Unlike the 1940 to 1950 period, however, the West had a larger relative gain than the East, with percentage increases between 1950 and 1957 of 36.3 and 28.4, respectively, compared to respective rates of 29.5 per cent and 32.4 per cent between 1940 and 1950. Relative enrollment increases between 1950 and 1957 ranged from 76.1 per cent in Economic Area 7a to 2.1 per cent in Economic Area 5b. Metropolitan Areas A, D and B, with respective percentage gains of 48.7, 46.6 and 41.2, ranked second, third and fourth in relative increase. In addition to Area 5b, enrollment in Economic Area 5a grew very little. These low rates of change were due mostly to declining enrollments in Okanogan and Ferry Counties. Only one other county, Kittitas, decreased in enrollment.

DIFFERENTIAL POPULATION AND EDUCATIONAL CHANGE: 1900 TO 1957

Population in the state of Washington increased 423.6 per cent between 1900 and 1957. Enrollment in grades 1 through 12 grew 351.4 per cent. The estimated total population in



ENROLLMENT CHANGE, GRADES 1 TO 12
WASHINGTON: 1920-1930 AND 1930-1940

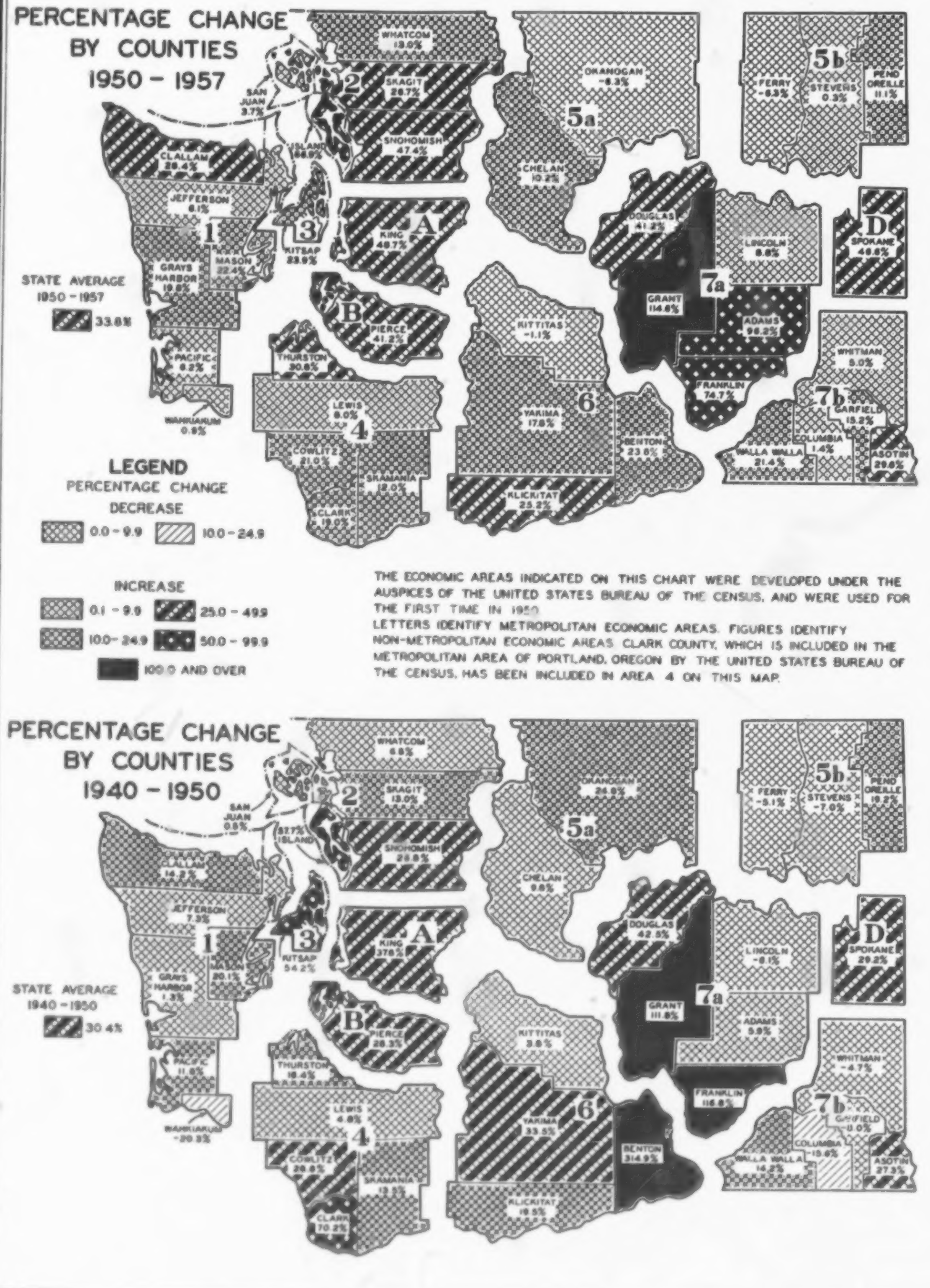
PERCENTAGE CHANGE BY COUNTIES 1930-1940
WHATCOM -12.4%
SKAGIT -10.4%
SAN JUAN -21.6%
SNOHOMISH -4.6%
ISLAND -20.7%
CLALLAM 12.0%
JEFFERSON 8.5%
GRAYS HARBOR -18.1%
MASON 10.5%
KITSAP 45.4%
KING 13.8%
PIERCE -4.6%
THURSTON 3.8%
PACIFIC -14.9%
WAHKIAKUM -11.6%
LEWIS -13.2%
COWLITZ 18.1%
SKAMANIA 21.6%
CLARK 5.1%
OKANOGAN 12.7%
CHELAN -13.8%
KITTITAS -10.3%
YAKIMA 4.1%
BENTON -5.8%
KLICKITAT -5.3%
FERRY -3.9%
STEVENS -4.2%
PEND OREILLE -15.8%
DOUGLAS -28.5%
LINCOLN -18.1%
SPOKANE -17.5%
GRANT 61.7%
ADAMS -39.2%
FRANKLIN -18.7%
WHITMAN -25.1%
GARFIELD 31.9%
COLUMBIA -12.4%
WALLA WALLA -18.5%
ASOTIN -28.6%
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE AVERAGE 1930 - 1940
-7.8%
LEGEND
PERCENTAGE CHANGE
DECREASE
0.0 - 9.9
10.0 - 24.9
25.0 AND OVER
INCREASE
0.1 - 9.9
25.0 - 49.9
10.0 - 24.9
50.0 - 99.9
100.0 AND OVER
PERCENTAGE CHANGE BY COUNTIES 1920 - 1930
WHATCOM 8.0%
SKAGIT -3.5%
SAN JUAN -0.3%
SNOHOMISH 13.5%
ISLAND -3.7%
CLALLAM 73.4%
JEFFERSON 44.6%
GRAYS HARBOR 34.2%
MASON 118.4%
KITSAP 11.8%
KING 38.8%
PIERCE 18.0%
THURSTON 33.3%
PACIFIC 0.8%
WAHKIAKUM 16.5%
LEWIS 1.6%
COWLITZ 142.5%
SKAMANIA 3.3%
CLARK 23.4%
OKANOGAN 6.6%
CHELAN 71.0%
KITTITAS -0.4%
YAKIMA 27.2%
BENTON -3.4%
KLICKITAT 2.1%
FERRY -12.8%
STEVENS -12.7%
PEND OREILLE 3.8%
DOUGLAS -12.2%
LINCOLN -23.8%
SPOKANE -1.0%
GRANT -18.7%
ADAMS -25.8%
FRANKLIN 7.0%
WHITMAN -15.2%
GARFIELD -6.3%
COLUMBIA -13.1%
WALLA WALLA -9.0%
ASOTIN 8.0%
STATE AVERAGE 1920 - 1930
17.4%

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

Figure 3:4

ENROLLMENT CHANGE, GRADES 1 TO 12
WASHINGTON: 1940-1950 AND 1950-1957


PERCENTAGE CHANGE BY COUNTIES 1950 - 1957
WHATCOM 13.0%
SKAGIT 28.7%
SNOHOMISH 47.4%
SAN JUAN 3.7%
ISLAND 66.9%
CLALLAM 28.4%
JEFFERSON 6.1%
KITSAP 33.9%
KING 49.7%
MASON 22.4%
GRAYS HARBOR 19.8%
PIERCE 41.2%
THURSTON 30.8%
PACIFIC 8.2%
WAHKIAKUM 0.9%
LEWIS 8.0%
COWLITZ 21.0%
SKAMANIA 12.0%
CLARK 19.0%
OKANOGAN -6.3%
CHELAN 10.2%
FERRY -6.3%
STEVENS 0.3%
PEND OREILLE 11.1%
DOUGLAS 41.2%
LINCOLN 8.8%
SPOKANE 48.6%
GRANT 114.6%
ADAMS 96.2%
KITTITAS -1.1%
YAKIMA 17.8%
BENTON 23.8%
KLICKITAT 25.2%
FRANKLIN 74.7%
WHITMAN 5.0%
GARFIELD 15.2%
COLUMBIA 1.4%
WALLA WALLA 21.4%
ASOTIN 29.6%
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE AVERAGE 1950 - 1957
33.6%
LEGEND
PERCENTAGE CHANGE
DECREASE
0.0 - 9.9
10.0 - 24.9
INCREASE
0.1 - 9.9
25.0 - 49.9
10.0 - 24.9
50.0 - 99.9
100.0 AND OVER
PERCENTAGE CHANGE BY COUNTIES 1940 - 1950
WHATCOM 6.8%
SKAGIT 13.0%
SNOHOMISH 28.8%
SAN JUAN 0.5%
87.7% ISLAND
CLALLAM 14.2%
JEFFERSON 7.3%
KITSAP 54.2%
KING 37.8%
MASON 20.1%
GRAYS HARBOR 1.3%
PIERCE 28.3%
THURSTON 18.4%
PACIFIC 11.8%
WAHKIAKUM -20.3%
LEWIS 4.8%
COWLITZ 28.8%
SKAMANIA 13.5%
CLARK 70.2%
OKANOGAN 24.8%
CHELAN 9.8%
FERRY -5.1%
STEVENS -7.0%
PEND OREILLE 19.2%
DOUGLAS 42.5%
LINCOLN -6.1%
SPOKANE 29.2%
GRANT 111.8%
ADAMS 5.9%
KITTITAS 3.6%
YAKIMA 33.5%
BENTON 314.9%
KLICKITAT 19.5%
FRANKLIN 116.8%
WHITMAN -4.7%
GARFIELD 0.0%
COLUMBIA -15.6%
WALLA WALLA 14.2%
ASOTIN 27.3%
STATE AVERAGE 1940 - 1950
30.4%

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

Figure 3:5

1957 was 2,712,700 persons, and the total public school enrollment was 551,692 pupils.

In Western Washington, relative population and enrollment gains were 477.4 per cent and 420.2 per cent, respectively. Corresponding figures for Eastern Washington were 331.9 per cent and 247.9 per cent. Percentage increases in population ranged from 1,058.6 in Economic Area 3 to 63.2 in Economic Area 7b. Relative enrollment gains ranged from 1,003.1 per cent in Economic Area 3 to 4.4 per cent in Economic Area 7b. (Figure 3:6)

Except for three instances, the Economic Areas had identical rankings in relative population and enrollment change during this period. Exceptions included Economic Area 5a, which ranked third in percentage of population increase, compared to a rank of two in enrollment increase; Economic Area 6, which ranked second in population change, as opposed to a rank of four in enrollment increase; and Metropolitan Area A (King County), which ranked fourth in relative population gain, compared to a rank of three in enrollment change. Variations in age and sex composition, marital status and rates of natural increase, as well as size of enrollments in privately-supported schools, apparently influenced these shifts in relative change in population and education between 1900 and 1957.

Counties with below average natural increase show population and enrollment changes completely different from those of the state as a whole. For example, Columbia, Garfield and Lincoln Counties decreased in both population and enrollment between 1900 and 1957, while the state was increasing 423.6 per cent in population and 351.4 per cent in educational enrollment. San Juan, Wahkiakum and Whitman Counties had rates of population change ranging from 9.3 per cent to 38.3 per cent, but decreased in enrollment between -9.3 per cent and -29.6 per cent. These deviations from state trends were accompanied by rates of natural increase ranging from 50.4 to 115.1 -- in contrast to 137.7 for the state.

Jefferson and Okanogan Counties showed rates of natural increase much greater than the rate for the state. These counties had respective population gains of 47.1 per cent and 522.7 per cent, with educational gains of 116.5 per cent and 1,003.4 per cent.

URBANIZATION TRENDS AND EDUCATIONAL CHANGE

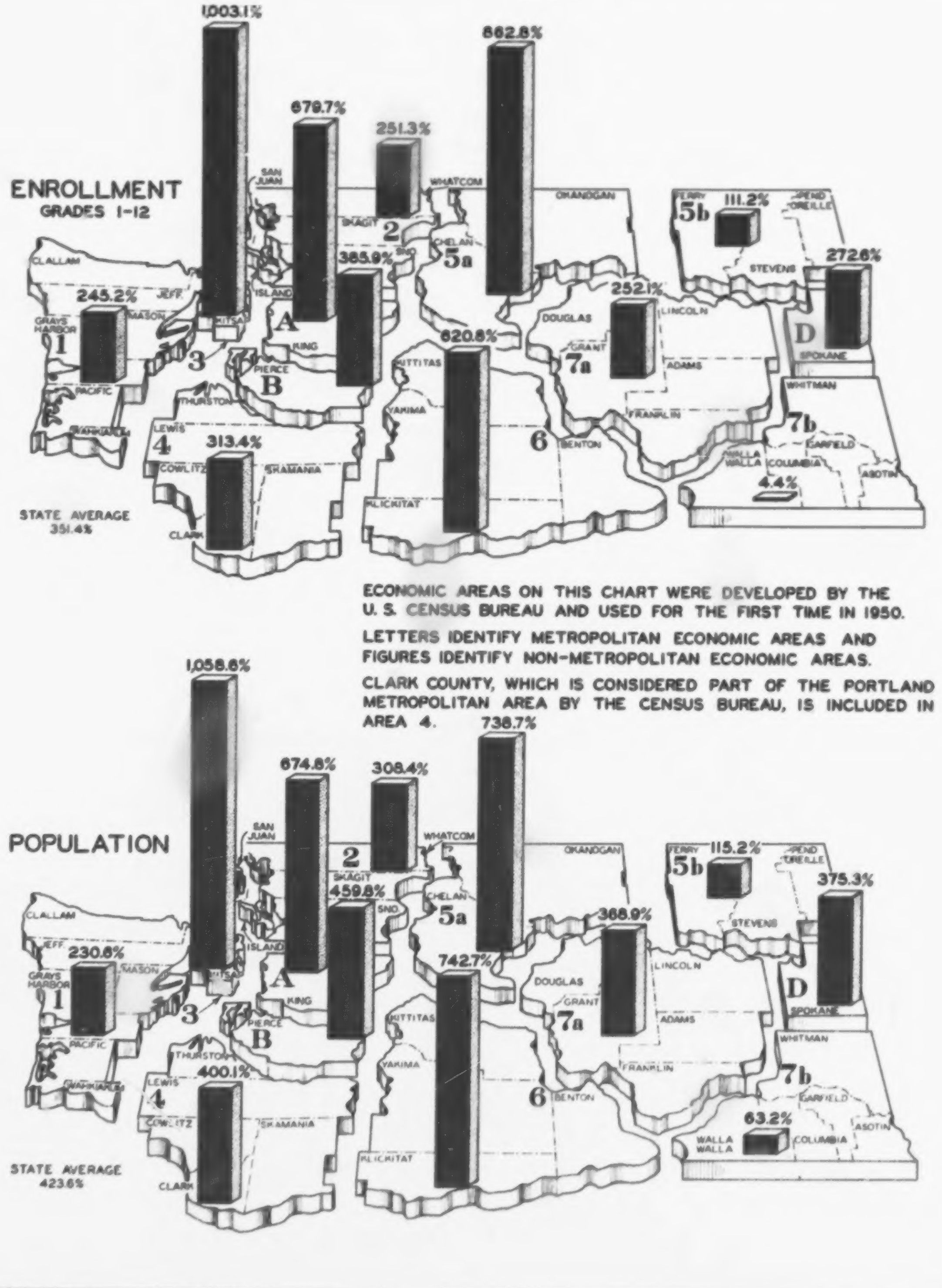
Trends in Urbanization. Growth and distribution of urban population[3] within the state of Washington manifest marked differences from one section to another. For example, in the 19 counties west of the Cascade Range, 55.9 per cent of the population in 1950 was classified as urban -- in contrast to 47.9 per cent in the 20 counties east of the Cascade Range.

---

[3] According to the definition used by the United States Bureau of the Census, "urban" includes places of 2,500 inhabitants or more incorporated as cities, boroughs, towns and villages. Most of the statistics used in this discussion are based on this definition.

The development of a precise, meaningful and realistic definition of "urban" population has been the concern of demographers and sociologists for many decades. In the 1950 Census, a considerably improved definition was used, in addition to the traditional definition indicated in the preceding paragraph. According to the new definition, urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, towns, and villages; (b) the densely settled urban fringe, including both incorporated and unincorporated areas, around cities of 50,000 or more; and (c) unincorporated places of 2,500 inhabitants or more outside any urban fringe.

POPULATION AND ENROLLMENT TRENDS
PERCENTAGE CHANGE
ECONOMIC AREAS: 1900 TO 1957



ECONOMIC AREAS ON THIS CHART WERE DEVELOPED BY THE U. S. CENSUS BUREAU AND USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS AND FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS.

CLARK COUNTY, WHICH IS CONSIDERED PART OF THE PORTLAND METROPOLITAN AREA BY THE CENSUS BUREAU, IS INCLUDED IN AREA 4.

Figure 3;6

In 1900, the corresponding figures were 48.6 per cent and 27.6 per cent.

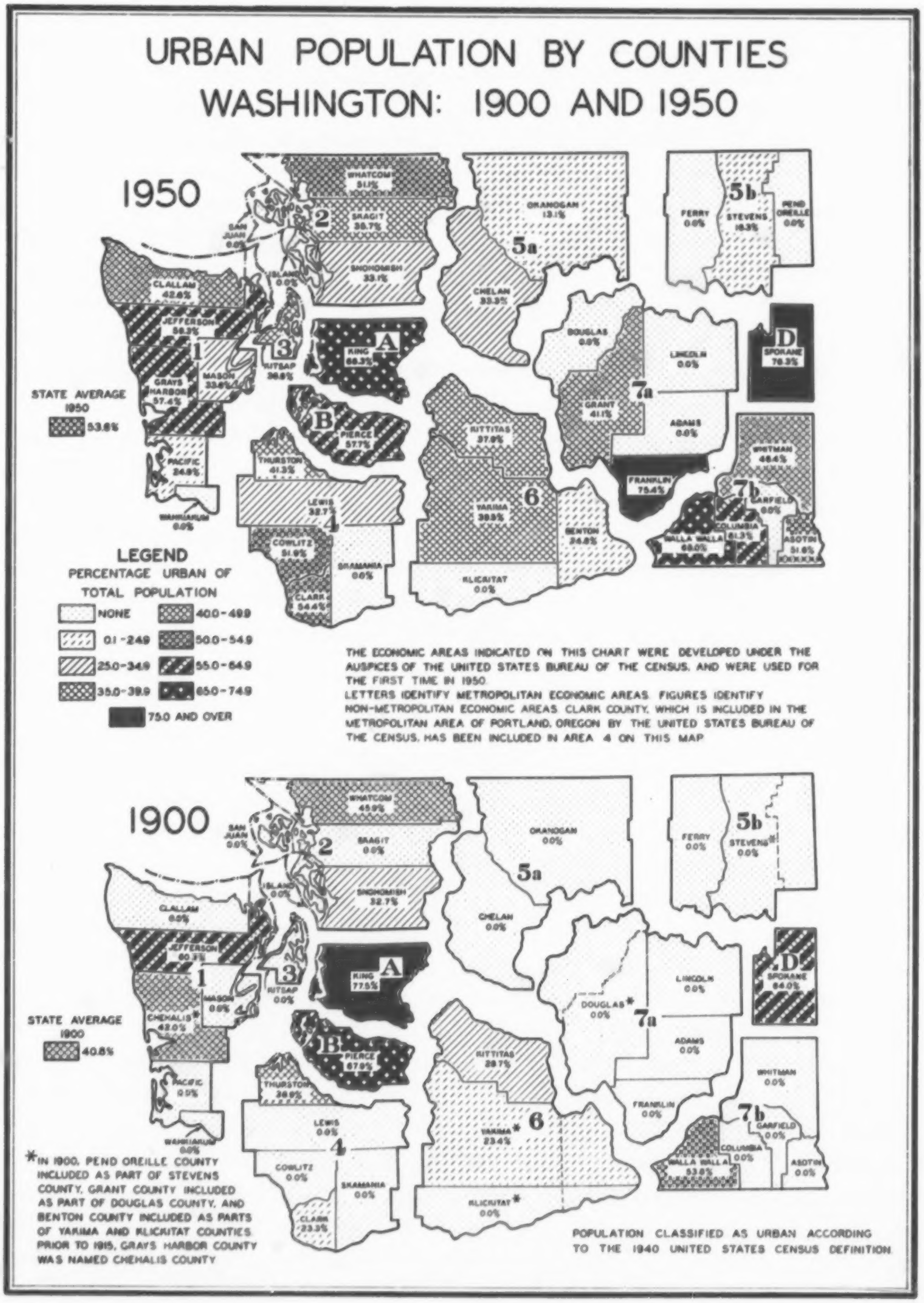
Also, there are significant differences in the proportion of urban population between Metropolitan and Non-Metropolitan Economic Areas. In the Metropolitan Economic Areas, 66.5 per cent of the 1950 population was urban, compared to 37.5 per cent in the Non-Metropolitan Economic Areas. In 1900, corresponding percentages were 68.9 in the Metropolitan Areas and 17.2 in the Non-Metropolitan Areas. (Figure 3:7) When the twelve Economic Areas are considered individually, each of the three Metropolitan Areas in 1900 had 60 per cent or more of their population classified as urban. In 1900, all of the remaining nine Economic Areas had less than 30 per cent urban population. Four of the nine Economic Areas -- Areas 3, 5a, 5b and 7a -- had no urban population at all. In 1950, all but two Economic Areas — Areas 5a and 5b -- had more than 30.0 per cent of their population classified as urban.

Although the two largest Metropolitan Areas, corresponding to King and Pierce Counties, had many more people living in cities in 1950 than in 1900, the proportion of the population classified as "urban" has declined in these two counties during the past 50 years. In 1900, 77.5 per cent of the population in King County and 67.9 per cent of the population in Pierce County were classified as urban in comparison to 68.3 per cent and 57.7 per cent, respectively, in 1950. This trend not only reflects the suburban movement of population in the Seattle (King County) and Tacoma (Pierce County) areas, but also, the limitations of the criteria used in differentiating "urban" and "rural" population. With the large territorial annexations to Seattle and other municipalities in King County since 1950, as well as the incorporation of several new towns and cities, the population in King County classified as "urban" is appreciably larger at the present time than in 1950.

Urbanization and School Enrollment. Any attempt to determine the relationship between urbanization and enrollment encounters serious difficulties, the primary obstacle being the paucity of data, especially enrollment statistics by urban and rural classification. Without such basic data, it is not possible to make direct comparisons of enrollment trends in urban and rural areas with corresponding population changes.

In general, the highest rates of decennial increase can be observed for (1) urban population in Non-Metropolitan Areas, and (2) total population, including both urban and rural, in Metropolitan Areas. These basic population trends usually reflect substantial enrollment increases in all grades, from 1 through 12. For example, during the 1910-20 decade in Economic Area 3, the total population increased by 87.9 per cent, but the urban population increased by 309.5 per cent. During this same period the increase in school enrollment amounted to 77.0 per cent. In Economic Area 4, the total population increased by 88.0 per cent between 1900 and 1910, with its urban population expanding almost fourfold. The over-all increase in the enrollment of public schools in the Area was 48.5 per cent.

The total population growth during the 1940-50 decade was 45.2 per cent in Metropolitan Area A (King County), and 51.5 per cent in Metropolitan Area B (Pierce County), with corresponding enrollment increases of 37.8 per cent and 28.3 per cent, respectively. Other Economic Areas, especially those with low population density do not indicate any clearly observable relationship between school enrollment and growth of urban population.



URBAN POPULATION BY COUNTIES
WASHINGTON: 1900 AND 1950

1950
WHATCOM 51.1%
SKAGIT 38.7%
SAN JUAN 0.0%
2
5a
OKANOGAN 13.1%
5b
FERRY 0.0%
STEVENS 18.3%
PEND OREILLE 0.0%
SNOHOMISH 33.1%
ISLAND 0.0%
CLALLAM 42.6%
CHELAN 33.3%
JEFFERSON 58.3%
1
3
KITSAP 36.8%
KING 68.3%
A
DOUGLAS 0.0%
LINCOLN 0.0%
D
SPOKANE 76.3%
GRAYS HARBOR 57.4%
MASON 33.6%
7a
GRANT 41.1%
ADAMS 0.0%
STATE AVERAGE 1950
53.8%
B
PIERCE 57.7%
KITTITAS 37.9%
WHITMAN 48.4%
PACIFIC 24.8%
THURSTON 41.3%
FRANKLIN 75.4%
7b
GARFIELD 0.0%
6
YAKIMA 38.3%
LEWIS 32.7%
4
WAHKIAKUM 0.0%
BENTON 24.8%
COLUMBIA 61.3%
WALLA WALLA 68.0%
ASOTIN 31.8%
COWLITZ 51.9%
SKAMANIA 0.0%
KLICKITAT 0.0%
CLARK 54.4%
LEGEND
PERCENTAGE URBAN OF TOTAL POPULATION
NONE
0.1 - 24.9
25.0 - 34.9
35.0 - 39.9
40.0 - 49.9
50.0 - 54.9
55.0 - 64.9
65.0 - 74.9
75.0 AND OVER
1900
WHATCOM 45.9%
SAN JUAN 0.0%
2
SKAGIT 0.0%
OKANOGAN 0.0%
5a
5b
FERRY 0.0%
STEVENS* 0.0%
SNOHOMISH 32.7%
ISLAND 0.0%
CLALLAM 0.0%
CHELAN 0.0%
JEFFERSON 60.3%
1
3
KING 77.5%
A
D
SPOKANE 64.0%
MASON 0.0%
KITSAP 0.0%
LINCOLN 0.0%
DOUGLAS* 0.0%
7a
STATE AVERAGE 1900
40.8%
CHEHALIS* 42.0%
B
PIERCE 67.9%
ADAMS 0.0%
KITTITAS 28.7%
WHITMAN 0.0%
PACIFIC 0.0%
THURSTON 36.9%
FRANKLIN 0.0%
7b
GARFIELD 0.0%
LEWIS 0.0%
YAKIMA* 23.4%
6
WAHKIAKUM 0.0%
4
COLUMBIA 0.0%
WALLA WALLA 53.8%
ASOTIN 0.0%
COWLITZ 0.0%
SKAMANIA 0.0%
KLICKITAT* 0.0%
CLARK 23.3%

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

*IN 1900, PEND OREILLE COUNTY INCLUDED AS PART OF STEVENS COUNTY, GRANT COUNTY INCLUDED AS PART OF DOUGLAS COUNTY, AND BENTON COUNTY INCLUDED AS PARTS OF YAKIMA AND KLICKITAT COUNTIES. PRIOR TO 1915, GRAYS HARBOR COUNTY WAS NAMED CHEHALIS COUNTY.

POPULATION CLASSIFIED AS URBAN ACCORDING TO THE 1940 UNITED STATES CENSUS DEFINITION.

Figure 3:7

SUMMARY

This chapter has discussed growth and distribution of population and trends in education, not only for the state as a whole, but especially for different territorial components.

The population has grown at a somewhat faster rate than has the number of pupils enrolled in the state's schools. However, changes in both factors have been phenomenal during the years from 1900 to 1957.

The relative concentration of population and enrollment differs markedly among the Economic Areas and counties in the state. Population density changed from 7.8 persons per square mile in 1900 to 42.3 in 1960. Enrollment in the state's schools increased from 122,225 pupils in 1900 to 551,692 in 1957. Population concentration in 1960 ranged from a density of 433.8 in King County to 1.8 persons per square mile in Ferry County. Enrollment in 1957 varied from 157,692 pupils in King County to 578 pupils in Wahkiakum County.

Long-term change, from 1900 to 1957, showed a general tendency for population to increase more rapidly than enrollment. Reversal of this trend in a few counties was invariably accompanied by substantially lower than average rates of natural increase.

Trends in proportion of total population classified as urban have in general been similar to growth of enrollment in the state's schools.

CHAPTER 4

MIGRATION, FERTILITY AND EDUCATIONAL CHANGE

The extraordinary upsurge of enrollment in elementary and secondary schools, as well as the anticipated future growth in colleges and universities, is a reflection of basic population changes. These changes include not only an unprecedented increase in the number of people, but also pronounced shifts in fertility, mortality and migration trends.

Population Growth. Recent growth in population of Washington has exceeded that of most states, so that problems resulting from increased enrollments are more severe and complicated than in other parts of the nation. In the 1940-50 decade, the state of Washington had a population growth of 642,772, an increase of 37 per cent — almost three times as great as the national average. In the past decade, Washington's rate of growth was approximately 19 per cent, compared to the national average of 17 per cent.

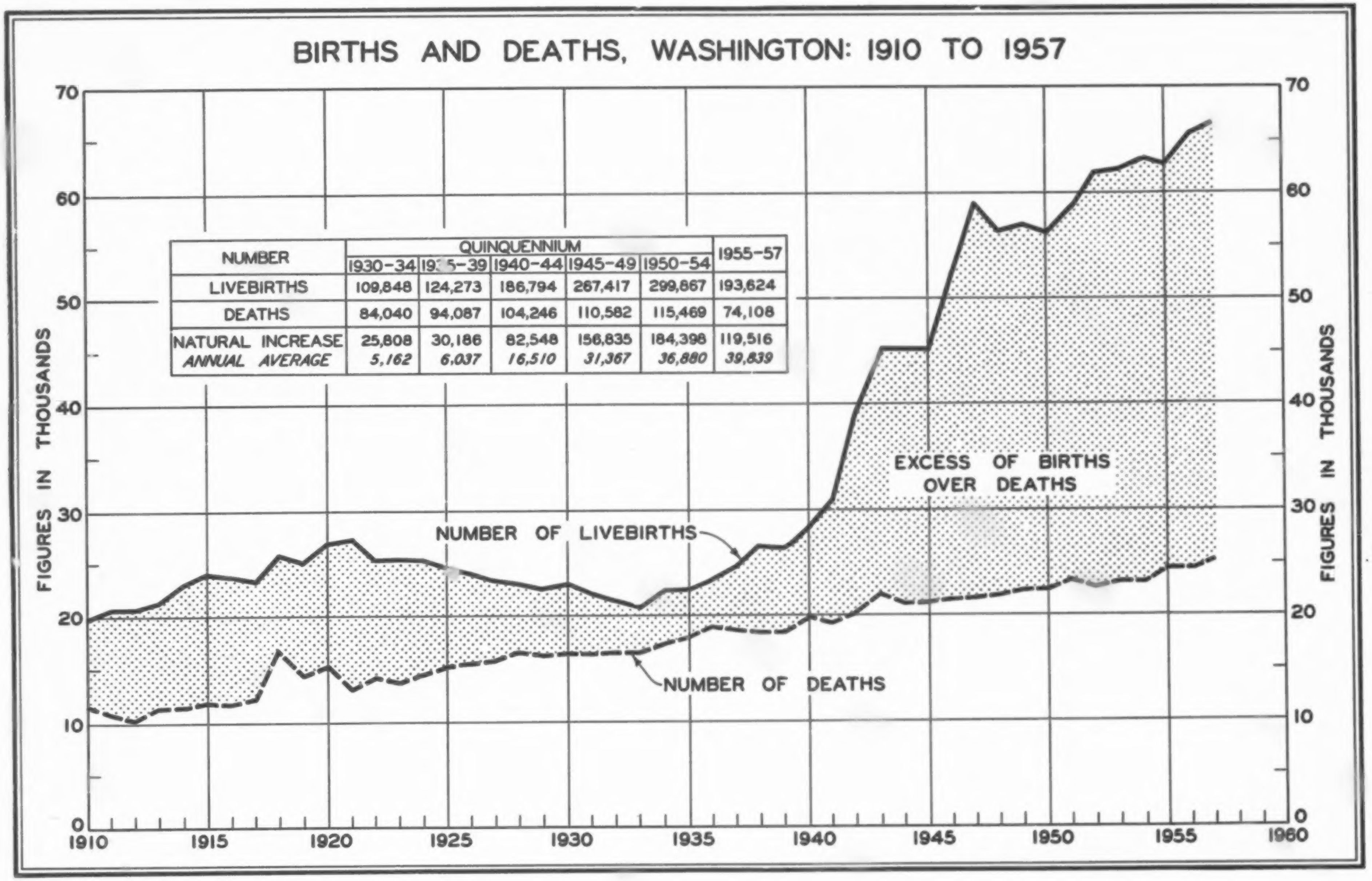
Population changes result from two sets of differentials: (1) natural increase, the difference between numbers of births and deaths, and (2) net migration, the difference between in- and outmigration. This study considers the components of population change — fertility, mortality and migration — in some detail, especially their influence on the schools.

FERTILITY AND MORTALITY

Rising Birth Rate. One of the outstanding demographic phenomena affecting school enrollment in recent years has been the rapidly rising birth rate. During the early 1930's, the birth rate had reached a low ebb throughout the country, and it was generally anticipated that in a few decades the population of the United States would begin to level off, or even decline. An unexpected reversal in this long-term downward trend occurred about 20 years ago, and in every state in the Union the birth rate moved upward at an accelerated rate. In the state of Washington, the annual number of births between 1930 and 1936 did not exceed 24,000. By contrast, the annual number of births after 1946 did not go below the 50,000 level. In 1950 there were 55,817 livebirths. (Figure 4:1) The level of annual births has risen to greater than 65,000 in the later years of the 1950-60 decade (66,118 livebirths in 1957).

This high plateau of fertility can be expected to continue for many years. It will be only a few years until females born during the 1940's will reach the childbearing period, and in consequence, a new and expanded cycle of births in all probability will occur.

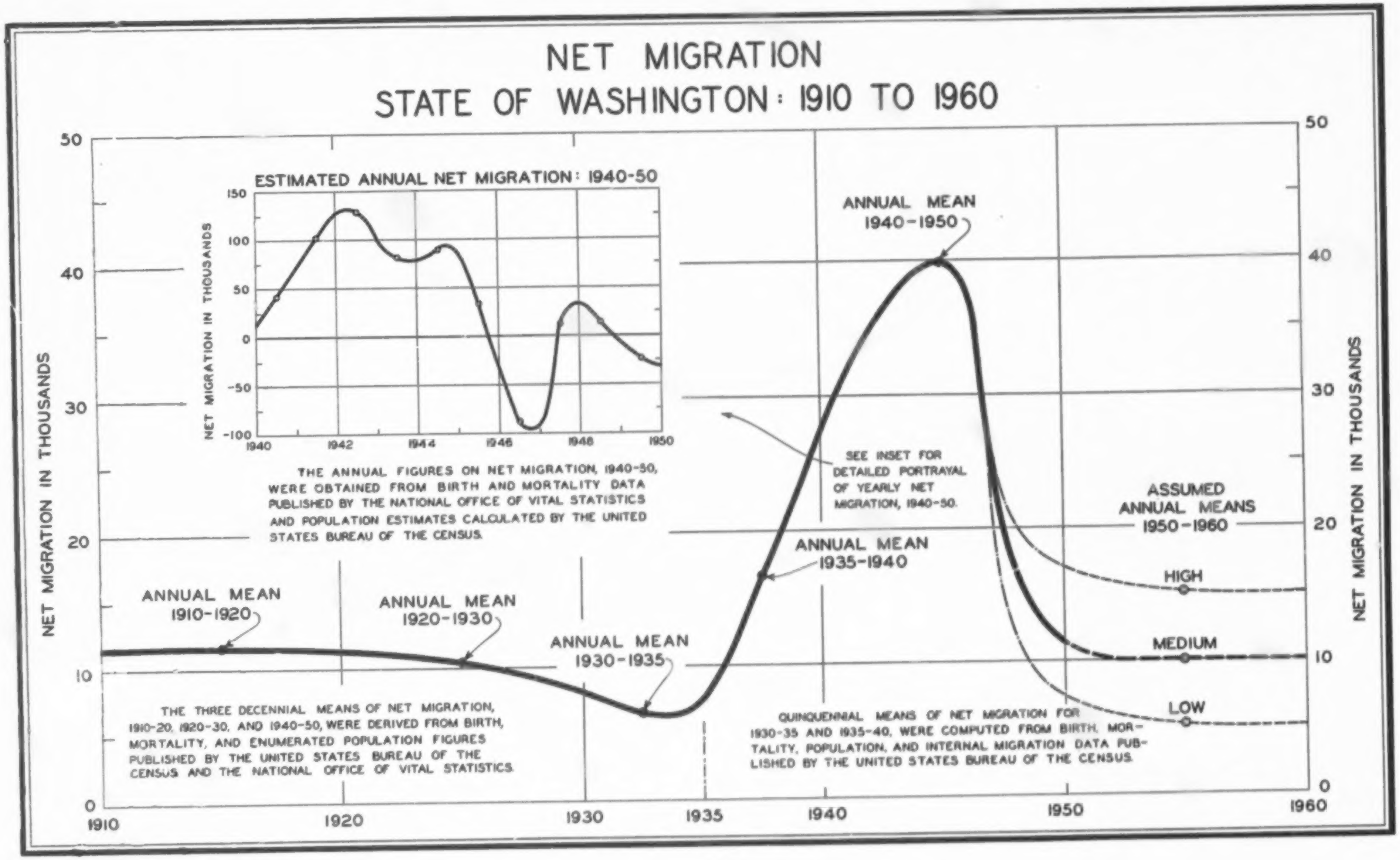
The extraordinarily large enrollments in all levels of education that will confront the nation for the next fifteen or twenty years will consist of children already born. This is a fact, not a debatable issue. No matter what might happen, short of population decimation in



BIRTHS AND DEATHS, WASHINGTON: 1910 TO 1957

NUMBER	QUINQUENNIUM					1955-57
	1930-34	1935-39	1940-44	1945-49	1950-54	
LIVEBIRTHS	109,848	124,273	186,794	267,417	299,867	193,624
DEATHS	84,040	94,087	104,246	110,582	115,469	74,108
NATURAL INCREASE *ANNUAL AVERAGE*	25,808 *5,162*	30,186 *6,037*	82,548 *16,510*	156,835 *31,367*	184,398 *36,880*	119,516 *39,839*

Figure 4:1



NET MIGRATION
STATE OF WASHINGTON: 1910 TO 1960

ESTIMATED ANNUAL NET MIGRATION: 1940-50

THE ANNUAL FIGURES ON NET MIGRATION, 1940-50, WERE OBTAINED FROM BIRTH AND MORTALITY DATA PUBLISHED BY THE NATIONAL OFFICE OF VITAL STATISTICS AND POPULATION ESTIMATES CALCULATED BY THE UNITED STATES BUREAU OF THE CENSUS.

SEE INSET FOR DETAILED PORTRAYAL OF YEARLY NET MIGRATION, 1940-50.

THE THREE DECENNIAL MEANS OF NET MIGRATION, 1910-20, 1920-30, AND 1940-50, WERE DERIVED FROM BIRTH, MORTALITY, AND ENUMERATED POPULATION FIGURES PUBLISHED BY THE UNITED STATES BUREAU OF THE CENSUS AND THE NATIONAL OFFICE OF VITAL STATISTICS.

QUINQUENNIAL MEANS OF NET MIGRATION FOR 1930-35 AND 1935-40, WERE COMPUTED FROM BIRTH, MORTALITY, POPULATION, AND INTERNAL MIGRATION DATA PUBLISHED BY THE UNITED STATES BUREAU OF THE CENSUS.

NET MIGRATION IN THOUSANDS
150
100
50
0
-50
-100
1940
1942
1944
1946
1948
1950
ANNUAL MEAN 1910-1920
ANNUAL MEAN 1920-1930
ANNUAL MEAN 1930-1935
ANNUAL MEAN 1935-1940
ANNUAL MEAN 1940-1950
ASSUMED ANNUAL MEANS 1950-1960
HIGH
MEDIUM
LOW
NET MIGRATION IN THOUSANDS
0
10
20
30
40
50
1910
1920
1930
1935
1940
1950
1960

Figure 4:2

a thermonuclear conflict, the crisis in school enrollments will continue indefinitely.

Declining Death Rate. The death rate in the state of Washington has always been low in comparison to the nation, and the trend in mortality has been downward. In 1910, the age-adjusted death rate for the total population was 13.5, but it had dropped to 8.9 by 1950.

Although the death rate for the total population has declined, certain age-groups have shown relatively little change while others have indicated spectacular reductions. The trend in mortality for younger age-periods has been characteristically downward, whereas older age-periods show little decline, and in a few instances, an actual increase. The death rate for children under 5 years of age, for example, has declined approximately 66.0 per cent since 1910, but the death rate for the age-group 70 years and over has increased slightly.

Not only is the total population greater today because of the general downward trend in mortality, but more especially the child population is proportionately much larger, because of the extraordinary saving of life among the younger ages.

MIGRATION

Migration as a Factor in Population Growth. As indicated previously, in addition to natural increase, population change may result from migration. Both factors have been especially important in the recent growth of population in the state of Washington.

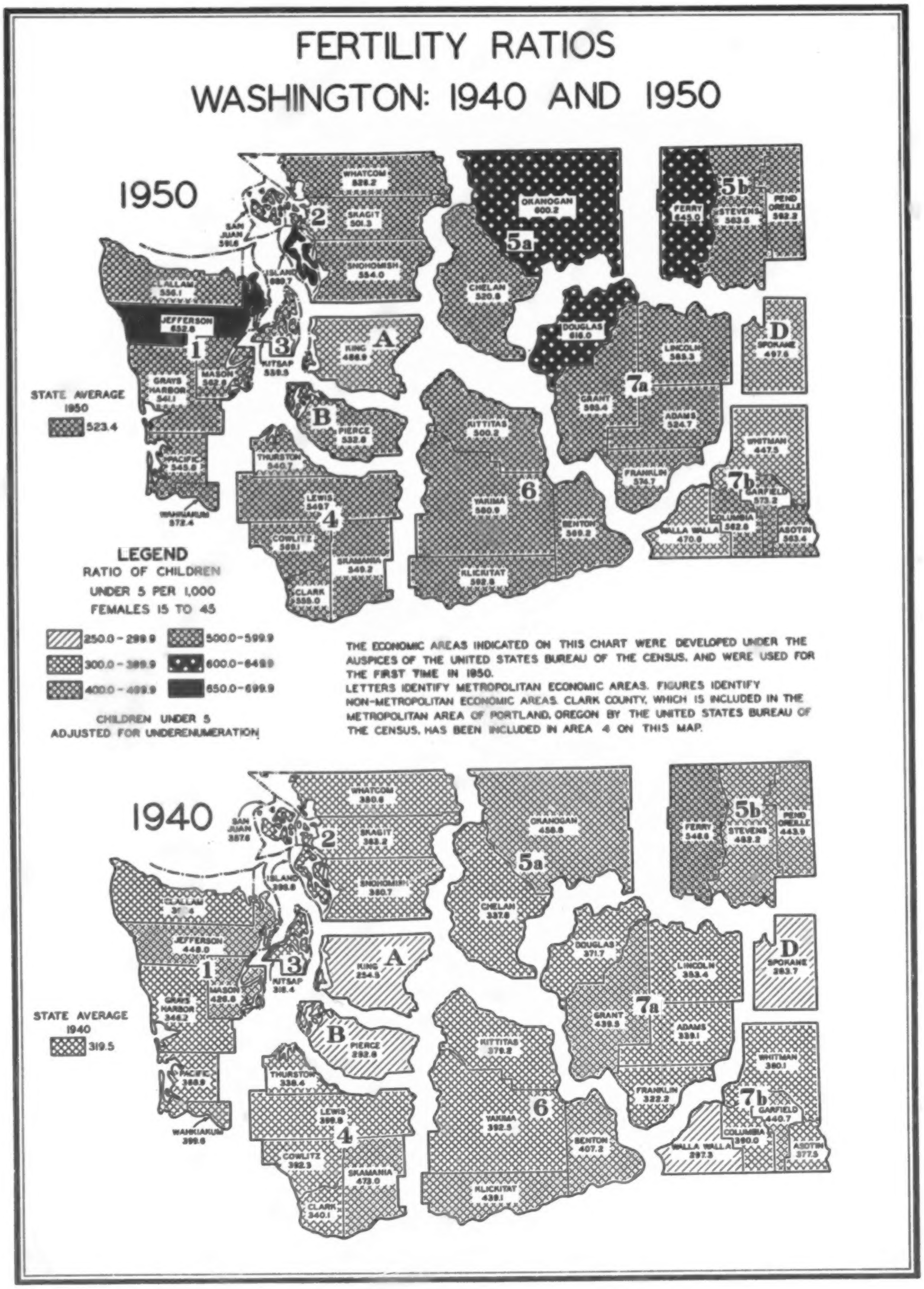
Between 1910 and 1920, net migration for the state of Washington totalled approximately 116,000 and the corresponding figure for the following decade was about 105,000. During the next quinquennial period, 1930 to 1935, net migration averaged around 6,500 per year — a drop of about 50 per cent from the previous twenty-year average. The yearly average of net migration for the five-year period, 1935 to 1940, rose to 16,700 and continued to rise to a yearly average of 40,000 net migrants for the decade 1940-1950. On the basis of very limited data, it is estimated that the average annual net migration between 1950 and 1960 dropped to between 5,000 and 15,000 — with a midpoint of about 10,000. (Figure 4:2)

These facts clearly indicate that migration is of considerable significance in interpreting recent population and enrollment trends in the state of Washington. In evaluating the significance of migration in school enrollment, it is not only essential to consider the large numbers of migrants per se, but also to recognize that a very large proportion are children of school and pre-school ages and young adults in the childbearing period.

POPULATION CHANGE

Changes in Age Structure of the Population. As a consequence of high birth rates and net inmigration, the number of children under 5 years of age increased from 121,918 in 1940 to 263,326 in 1950 — a rise of over 115 per cent. Children under 15 years of age totalled 366,522 in 1940 and 626,807 in 1950.

The pronounced change in the age structure of the population between 1940 and 1950 also can be expressed in terms of an index commonly referred to as the "fertility ratio."


FERTILITY RATIOS
WASHINGTON: 1940 AND 1950

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.
LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

1950
WHATCOM 528.2
SKAGIT 501.3
SNOHOMISH 554.0
SAN JUAN 591.6
ISLAND 680.7
CLALLAM 556.1
JEFFERSON 652.8
KITSAP 558.5
MASON 562.8
GRAYS HARBOR 541.1
PACIFIC 545.8
WAHKIAKUM 572.4
KING 486.9
PIERCE 532.8
THURSTON 540.7
LEWIS 549.7
COWLITZ 569.1
SKAMANIA 549.2
CLARK 558.0
OKANOGAN 600.2
CHELAN 520.6
FERRY 645.0
STEVENS 563.6
PEND OREILLE 592.2
DOUGLAS 616.0
LINCOLN 563.3
GRANT 595.4
ADAMS 524.7
SPOKANE 497.6
KITTITAS 500.2
YAKIMA 580.9
BENTON 569.2
KLICKITAT 592.8
FRANKLIN 574.7
WHITMAN 447.5
GARFIELD 573.2
COLUMBIA 562.6
WALLA WALLA 470.6
ASOTIN 563.4
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE AVERAGE 1950
523.4
LEGEND
RATIO OF CHILDREN UNDER 5 PER 1,000 FEMALES 15 TO 45
250.0 - 299.9
300.0 - 399.9
400.0 - 499.9
500.0 - 599.9
600.0 - 649.9
650.0 - 699.9
CHILDREN UNDER 5 ADJUSTED FOR UNDERENUMERATION
1940
WHATCOM 380.6
SKAGIT 383.2
SNOHOMISH 380.7
SAN JUAN 387.6
ISLAND 399.8
CLALLAM 3 .4
JEFFERSON 448.0
KITSAP 318.4
MASON 426.8
GRAYS HARBOR 346.2
PACIFIC 368.9
WAHKIAKUM 399.6
KING 254.5
PIERCE 292.8
THURSTON 338.4
LEWIS 399.8
COWLITZ 392.3
SKAMANIA 473.0
CLARK 340.1
OKANOGAN 458.8
CHELAN 337.8
FERRY 546.6
STEVENS 482.2
PEND OREILLE 443.9
DOUGLAS 371.7
LINCOLN 353.4
GRANT 439.5
ADAMS 339.1
SPOKANE 283.7
KITTITAS 379.2
YAKIMA 392.5
BENTON 407.2
KLICKITAT 439.1
FRANKLIN 322.2
WHITMAN 380.1
GARFIELD 440.7
COLUMBIA 390.0
WALLA WALLA 297.3
ASOTIN 377.5
STATE AVERAGE 1940
319.5

Figure 4:3

The fertility ratio shows the relationship of children under 5 years of age to females in the childbearing period. As will be observed from Figure 4:3, the fertility ratios in the 39 counties of the state ranged from 254.5 to 546.6 in 1940, compared with 447.5 to 652.8 in 1950. The state average increased from 319.5 in 1940 to 523.4 in 1950.

These noteworthy changes in the age-structure of the population are reflected in the enrollment figures in the elementary schools. For every 100 children enrolled in Washington's elementary public schools in 1940, there were approximately 146 in 1950 and 200 in 1957. High school enrollments also have increased, but the most spectacular increases in the higher grades will occur in the near future. In 1959, there were about 179 high school pupils in public schools for every 100 in 1940. By 1965, in the short span of six years, this ratio will increase to approximately 216, compared to 100 in 1940.

Population Change by Economic Areas and Counties: 1940 to 1950. Table 4:1 summarizes the two sets of differentials, i.e., natural increase and net migration, by economic areas and by counties for the state of Washington during the 1940-50 decade. In the state as a whole, there were approximately 454,000 births and 215,000 deaths, resulting in a natural increase of 239,000 persons. Since the intercensal population increment was 642,772, net migration totalled approximately 403,000.

Rates of natural increase showed wide fluctuations from county to county for the 1940-1950 decade. Benton County, with a rate of 386 per 1,000 population, had the largest, and Skagit County, with 49, had the smallest. Other counties with high rates of natural increase were Kitsap (355), Franklin (263) and Clark (238). Rates of natural increase are not strictly comparable from one county to another, primarily because of the differential influence of the volume and type of inmigrants on the number of births and deaths. Each of these counties with high rates of natural increase during the period from 1940 to 1950 had very large numbers of inmigrants, primarily young adults. Migrants tend to have high fertility and low mortality. Benton County is the site (Richland) of the Hanford Atomic Products Operation, which also affects Franklin County, contiguous to Benton County; Kitsap County is the location of the Puget Sound Navy Yard; and Clark County, the site of shipyards (Vancouver) which attracted defense workers during World War II.

At the other extreme, in addition to Skagit County, San Juan County showed a rate of natural increase of only 50.4 per 1,000 population; Garfield County, 50.7 and Skamania County, 73.2. The rates of natural increase between 1940 and 1950, in each of the counties in the state, are shown in Table 4:I.

The largest counties, of course, show the greatest numerical changes. King County, with a population of 504,980 in 1940, had a natural increase of 71,644 between 1940 and 1950 (a rate of 141.9 per 1,000 population), compared with a natural increase of 159 in San Juan County (population 3,157 in 1940), which had a rate of 50.4. For the state of Washington, the rate of natural increase between 1940 and 1950 was 137.9 per 1,000 population.

It will be observed from Table 4:I that six counties decreased in population between 1940 and 1950, but sixteen counties, including these six, had more outmigrants than inmigrants. Net migration by counties is portrayed in Figure 4:4.

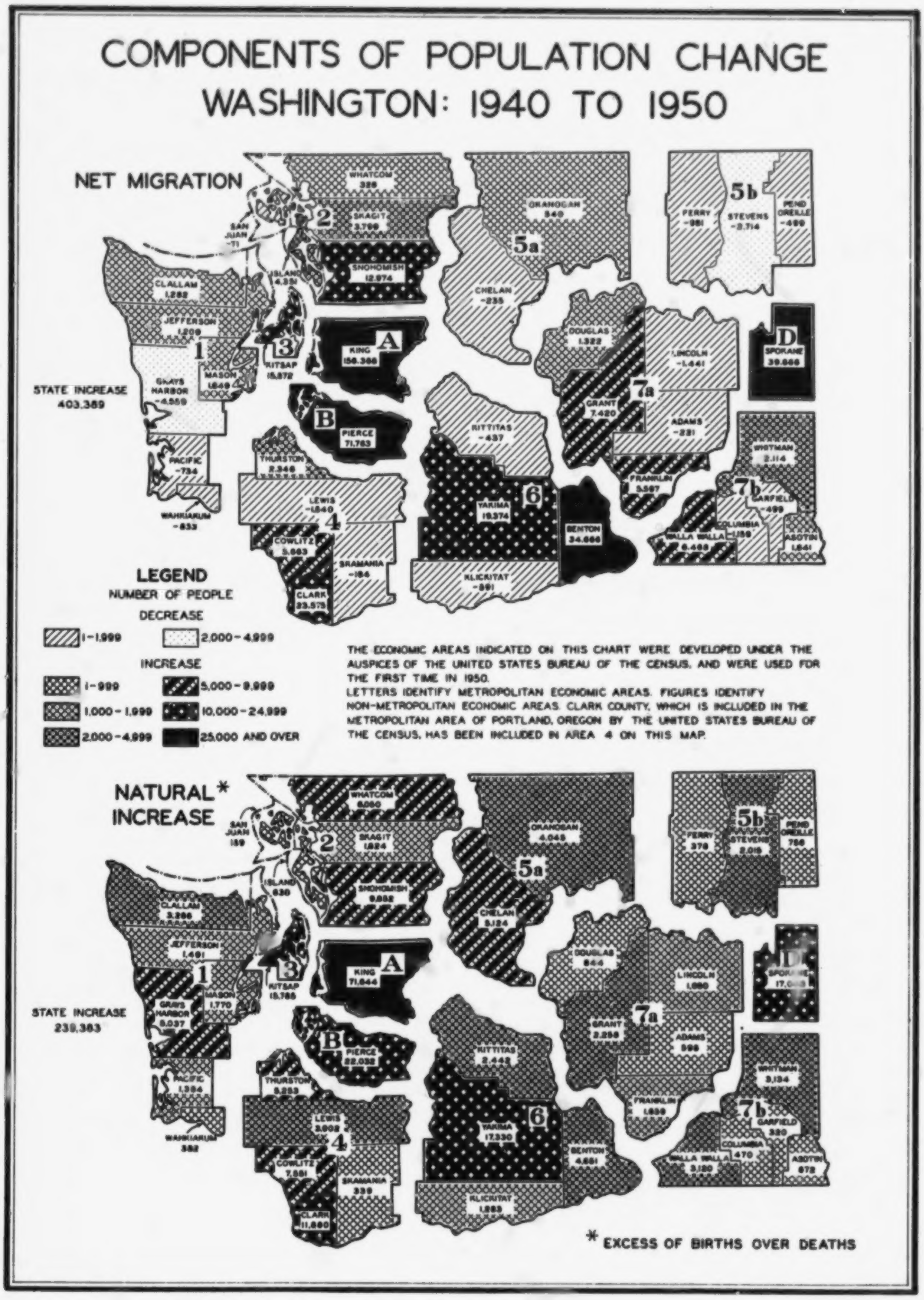
TABLE 4:I

Natural Increase and Net Migration

Counties and Economic Areas of Washington: 1940 to 1950

County and Economic Area	Births	Deaths	Natural Increase		Decennial Population Change	Net Migration
			Number	Rate per 1,000 Pop.		
State	454,211	214,828	239,383	137.9	642,772	403,389
West	326,364	156,173	170,191	139.9	463,149	292,958
East	127,847	58,655	69,192	133.1	179,623	110,431
Metropolitan.	246,333	123,734	122,599	136.0	414,171	291,572
Non-Metropolitan . .	207,878	91,094	116,784	139.9	228,601	111,817
Area 1	25,591	12,281	13,310	115.0	11,324	-1,986
Grays Harbor	10,983	5,946	5,037	94.7	478	-4,559
Clallam	5,503	2,237	3,266	149.5	4,548	1,282
Pacific.	2,987	1,623	1,364	85.6	630	- 734
Mason	2,963	1,193	1,770	152.6	3,419	1,649
Jefferson	2,437	946	1,491	167.2	2,700	1,209
Wahkiakum	718	336	382	89.1	- 451	- 833
Area 2	43,230	24,715	18,515	94.5	39,896	21,381
Snohomish	20,283	10,431	9,852	111.0	22,826	12,974
Whatcom.	13,065	7,015	6,050	100.2	6,378	328
Skagit	7,962	6,138	1,824	48.5	5,623	3,799
Island	1,470	840	630	103.3	4,981	4,351
San Juan	450	291	159	50.4	88	- 71
Area 3 & A & B.	209,315	99,874	109,441	149.6	353,144	243,703
King (A)	139,199	67,555	71,644	141.9	228,012	156,368
Pierce (B)	48,341	26,309	22,032	121.0	93,795	71,763
Kitsap (3)	21,775	6,010	15,765	355.2	31,337	15,572
Area 4 & C	48,228	19,303	28,925	166.9	58,785	29,860
Clark (C).	18,686	6,806	11,880	238.3	35,455	23,575
Lewis	8,669	4,767	3,902	94.3	2,362	-1,540
Thurston.	9,067	3,814	5,253	140.9	7,599	2,346
Cowlitz	11,111	3,560	7,551	188.1	13,214	5,663
Skamania	695	356	339	73.2	155	- 184
Area 5a	14,572	5,403	9,169	155.5	9,474	305
Chelan	8,463	3,339	5,124	148.9	4,889	- 235
Okanogan	6,109	2,064	4,045	164.8	4,585	540
Area 5b.	6,146	2,995	3,151	101.2	-1,043	-4,194
Stevens	3,952	1,933	2,019	104.8	- 695	-2,714
Pend Oreille.	1,401	645	756	105.7	257	- 499
Ferry	793	417	376	80.0	- 605	- 981
Area 6	40,552	14,846	25,706	180.2	78,718	53,012
Yakima	27,898	10,568	17,330	175.0	36,704	19,374
Benton	6,037	1,386	4,651	385.9	39,317	34,666
Kittitas	4,303	1,861	2,442	120.7	2,005	- 437
Klickitat	2,314	1,031	1,283	113.0	692	- 591
Area 7a	10,385	3,978	6,407	135.8	19,084	12,677
Douglas	1,378	534	844	97.6	2,166	1,322
Lincoln	2,130	1,080	1,050	92.4	- 391	-1,441
Adams	1,100	504	596	96.0	375	- 221
Franklin	2,585	926	1,659	263.0	7,256	5,597
Grant.	3,192	934	2,258	153.9	9,678	7,420
Areas 7b & D	56,192	31,433	24,759	103.3	73,390	48,631
Spokane (D)	40,107	23,064	17,043	103.5	56,909	39,866
Whitman	5,618	2,484	3,134	115.1	5,248	2,114
Walla Walla	7,104	3,984	3,120	102.1	9,588	6,468
Asotin	1,706	1,034	672	80.3	2,513	1,841
Columbia.	1,032	562	470	84.7	- 689	-1,159
Garfield	625	305	320	50.7	- 179	- 499

2.



COMPONENTS OF POPULATION CHANGE
WASHINGTON: 1940 TO 1950

NET MIGRATION

WHATCOM 326
SKAGIT 3,799
SAN JUAN -71
SNOHOMISH 12,974
ISLAND 4,351
CLALLAM 1,282
JEFFERSON 1,209
KITSAP 15,872
KING 156,366
GRAYS HARBOR -4,559
MASON 1,649
PIERCE 71,763
THURSTON 2,346
PACIFIC -734
WAHKIAKUM -833
LEWIS -1,840
COWLITZ 5,063
SKAMANIA -184
CLARK 23,575
OKANOGAN 340
CHELAN -235
FERRY -981
STEVENS -2,714
PEND OREILLE -499
DOUGLAS 1,322
GRANT 7,420
LINCOLN -1,441
ADAMS -221
SPOKANE 39,666
KITTITAS -437
YAKIMA 19,374
BENTON 34,666
KLICKITAT -891
FRANKLIN 5,597
WHITMAN 2,114
GARFIELD -499
COLUMBIA -1,159
WALLA WALLA 6,468
ASOTIN 1,641
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE INCREASE 403,389

LEGEND
NUMBER OF PEOPLE

DECREASE

- ▨ 1-1,999
- ▨ 2,000-4,999

INCREASE

- ▨ 1-999
- ▨ 1,000-1,999
- ▨ 2,000-4,999
- ▨ 5,000-9,999
- ▨ 10,000-24,999
- ■ 25,000 AND OVER

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.
LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

NATURAL* INCREASE

WHATCOM 6,050
SAN JUAN 159
SKAGIT 1,824
SNOHOMISH 9,882
ISLAND 630
CLALLAM 3,286
JEFFERSON 1,491
KITSAP 15,765
KING 71,644
GRAYS HARBOR 8,037
MASON 1,770
PIERCE 22,032
THURSTON 5,253
PACIFIC 1,384
WAHKIAKUM 382
LEWIS 3,902
COWLITZ 7,881
SKAMANIA 339
CLARK 11,880
OKANOGAN 4,045
CHELAN 5,124
FERRY 376
STEVENS 2,019
PEND OREILLE 756
DOUGLAS 644
LINCOLN 1,080
SPOKANE
GRANT 2,258
ADAMS 596
KITTITAS 2,442
YAKIMA 17,330
BENTON 4,681
KLICKITAT 1,283
FRANKLIN 1,839
WHITMAN 3,134
GARFIELD 320
COLUMBIA 470
WALLA WALLA 3,120
ASOTIN 672
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE INCREASE 239,383

* EXCESS OF BIRTHS OVER DEATHS

Figure 4:4

Three counties with the largest net numerical outmigration between 1940 and 1950 were Grays Harbor, Lewis and Stevens. However, the actual intercensal change in population in these three counties evidenced interesting variations. Although Grays Harbor County lost 4,559 by migration, it had sufficient natural increase to record a gain of 478 people during this period. Lewis County showed a population increment of 2,362, although it had a net outmigration of 1,540. Stevens County had a natural increase of 2,015, but lost 2,714 by migration, resulting in a net loss of 699 persons for the ten-year period. In addition to Grays Harbor, Lewis, and Stevens Counties, the following 13 counties showed a net outmigration: Lincoln (1,441), Columbia (1,159), Ferry (981), Wahkiakum (883), Pacific (734), Klickitat (591), Garfield (499), Pend Oreille (499), Kittitas (437), Chelan (235), Adams (221), Skamania (184) and San Juan (71).

EDUCATIONAL CHANGE

Trends in Total Enrollment in Public Elementary and Secondary Schools. Before 1925, less than one-fifth of the pupils in the first twelve grades of school were enrolled in high school. By 1940, the proportion of high school pupils had increased to almost one-third of the total enrollment. At the beginning of World War II, a temporary reversal of this trend took place, probably as a result of military enlistments and employment opportunities in war production industries. Moreover, as the influence of a greatly increased birth rate during the early 1940's began to manifest itself, enrollment in the lower grades was greatly augmented, which also effectively retarded a proportional increase in high school enrollment. In the future, there will be a pronounced tendency for high schools to increase proportionately as new generations, resulting from high birth rates during the past 20 years, move into the upper grades. By 1970, about one-third of the pupils in the state of Washington will be in secondary schools. (Table 4:II)

During the period between October 1, 1950, and October 1, 1959, there was an increase of 204,584 pupils, or about 22,700 per year. On October 1, 1958, the public elementary and secondary school enrollment showed an increase of 25,574 pupils over the previous year. During the next year, between October 1, 1958, and October 1, 1959, the annual increase amounted to 20,304 pupils. By October 1, 1960, an additional 25,000 pupils may be expected in the first twelve grades of public schools of Washington. These annual increases of around 20,000 will probably continue until 1964, when there will be about 108,000 more public school pupils in the first twelve grades than were enrolled on October 1, 1959. This is a gain of about 19 per cent in a five-year period.

The enrollment increases are not uniformly distributed throughout the various grades. High schools and junior high schools will bear the greatest burden of increase during the next few years. In fact, increases in elementary school enrollments will be relatively small, that is, no more than 11 per cent by 1964, as compared with 40 per cent in the high schools.

Ratio of First Grade Enrollment to Number of Livebirths Six Years Before. An analysis of changes in public school enrollment in the various grades indicates that, to a large

TABLE 4:II

Trends and Forecasts of Public School Enrollment
State of Washington: 1950 to 1970*

Grade	Actual				Forecast										
	1950	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
1	41,535	55,417	57,976	58,559	58,900	60,400	60,200	62,600	63,700	63,700	64,700	65,600	66,500	67,500	68,400
2	41,412	52,641	54,131	56,037	57,500	57,900	59,300	59,200	61,500	62,600	62,600	63,600	64,500	65,400	66,400
3	37,360	52,238	52,413	53,209	56,800	57,500	57,900	59,500	59,400	61,700	62,900	62,900	63,800	64,700	65,700
4	33,248	52,092	52,140	51,606	53,800	56,400	56,900	57,600	59,000	59,000	61,200	62,400	62,400	63,300	64,200
5	31,881	55,023	52,212	51,577	52,300	53,900	56,700	57,200	57,900	59,400	59,400	61,800	63,000	63,000	63,900
6	30,815	44,557	54,790	51,962	52,000	52,100	53,600	56,300	56,700	57,400	58,800	58,800	61,100	62,200	62,100
7	30,478	40,502	45,079	54,773	52,700	52,900	52,900	54,600	57,400	58,000	58,800	60,400	60,400	62,800	64,200
8	28,934	40,491	40,285	44,580	55,100	52,300	52,400	52,400	54,000	56,800	57,300	58,000	59,500	59,600	61,900
Σ 1-8	275,663	392,961	409,026	422,303	439,100	443,400	449,900	459,400	469,600	478,600	485,700	493,500	501,200	508,500	516,800
9	27,200	41,421	41,092	40,825	45,600	56,300	53,600	53,900	54,000	55,800	58,900	59,500	60,400	62,100	62,300
10	25,372	36,976	41,306	40,549	41,000	46,200	57,400	54,900	55,500	55,900	58,200	61,700	62,700	64,000	66,200
11	22,295	30,389	34,577	38,417	38,600	39,100	44,200	55,200	53,100	54,000	54,700	57,200	61,000	62,400	64,000
12	18,553	26,042	27,362	31,573	34,800	34,700	35,200	39,900	49,900	48,000	48,900	49,600	52,000	55,400	56,700
Σ 9-12	93,420	134,828	144,337	151,364	160,000	176,300	190,400	203,900	212,500	213,700	220,700	228,000	236,100	243,900	249,200
Σ 1-12	369,083	527,789	553,363	573,667	599,100	619,700	640,300	663,300	682,100	[illegible]92,300	706,400	721,500	737,300	752,400	766,000

*Forecasts prepared by Washington State Census Board, November 17, 1958. Figures represent October 1st enrollments.

extent, rapid increases in rates of birth and net inmigration have been reflected in an increase of pupils in the first grade of elementary schools. Ordinarily, if no migration took place, the number of pupils in the first grade would be approximately the same as the number of births six years before, disregarding slight decreases due to mortality of children six years of age and younger. In 1958, the ratio of October 1 enrollment in the first grade of the public schools in the state of Washington to the total number of births to resident mothers six years before was .943. During the previous five years, the ratio had ranged from .941 in 1955 to .980 in 1954

However, marked differentials in this ratio can be observed among the 39 counties. For children born in 1952 who entered public elementary school in 1958, Island County recorded a ratio of 1.77. Douglas County and Adams County ranked second and third, respectively, with ratios of 1.45 and 1.42.

These ratios reflect relatively high rates of net inmigration of families with pre-school children. In recent years, the largest number of young adult migrants with small children is to be found in areas of the state where there are military bases, construction projects (such as dams), and newly settled irrigation lands. On the other hand, when a military installation is liquidated, or a construction project completed, the ratio in the vicinity may show a marked decline. Thus, for example, the ratio of .500 observed for Jefferson County, undoubtedly the lowest in the entire state in 1958, can be explained largely by the closure of Fort Worden a few years before. King County, the most populated area in the state, had a ratio of .926 in 1958. Of 18,598 children born in King County in 1952, there were 17,228 pupils enrolled in the first grade of public school six years later. For children born in 1951, this first grade births ratio on October 1, 1957, was .940. The number of pupils enrolled in the first grade was 16,625, as compared to 17,690 livebirths six years before.

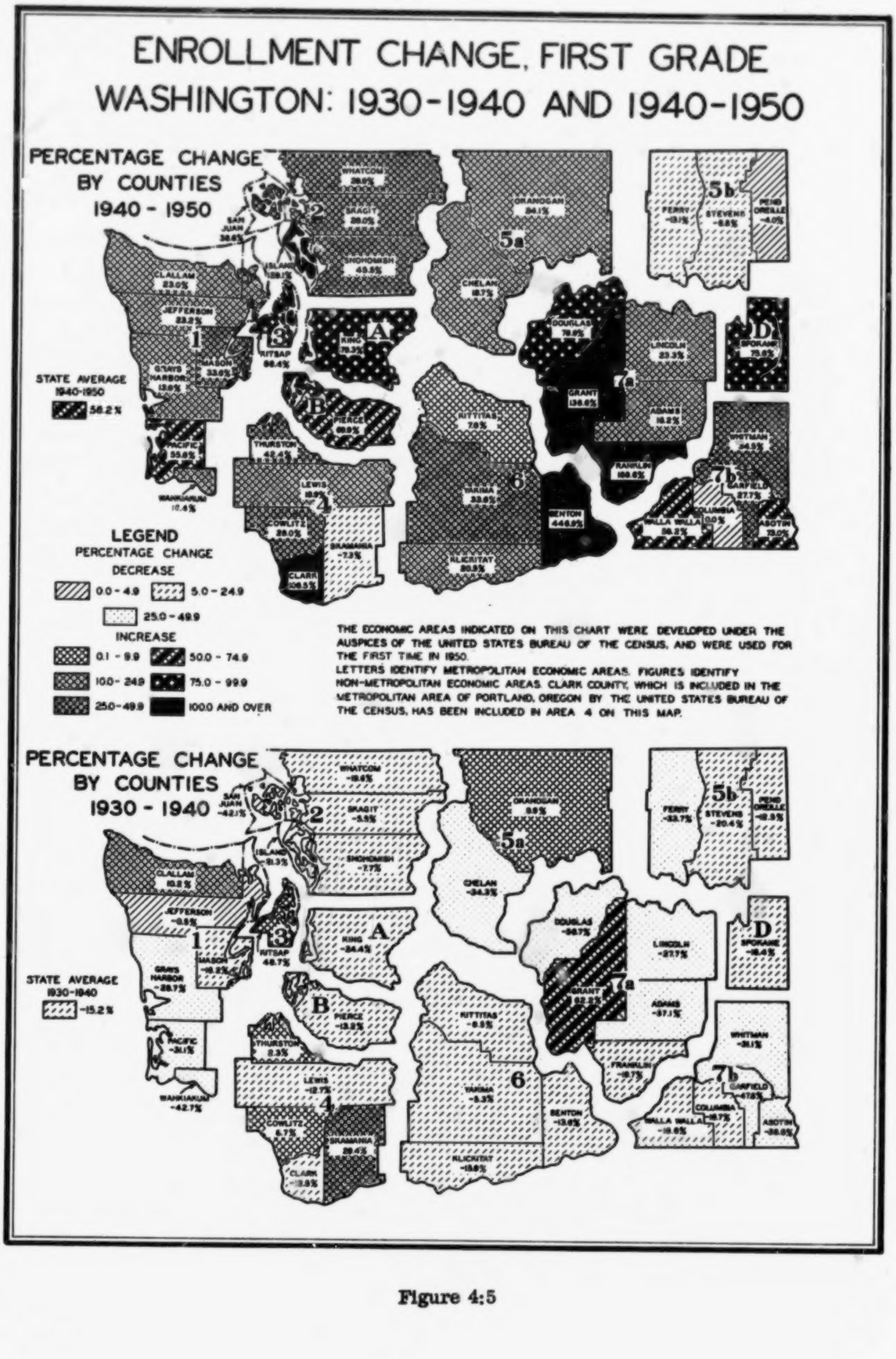
First Grade and Twelfth Grade as Indices of Educational Change. A comparison of the size of first grade enrollments[1] for a series of quinquennial years shows that the largest number of first grade pupils — 61,019 — was recorded for the 1955-56 school-year. Twenty years before, in 1935-36, there were 30,644 — about one-half as many.

The three Metropolitan Economic Areas — King, Pierce and Spokane Counties — recorded the highest numbers of first grade public school pupils enrolled during the 1956-57 school-year. King County had 17,224 pupils, and Pierce and Spokane Counties had 6,566 and 5,484, respectively. At the other extreme, San Juan, Wahkiakum and Garfield Counties had the lowest enrollments of first grade pupils in the state, ranging from 47 in Wahkiakum County to 66 in Garfield County. In each of these counties, first grade enrollments since 1900-01 have manifested a downward trend. For example, Columbia County had 88 first grade pupils in 1956-57, compared to 381 during the 1900-01 school-year.

It was pointed out above that the major determinant of enrollment in the first grade is the number of births to women six years before. In turn, the number of pupils in the first

---

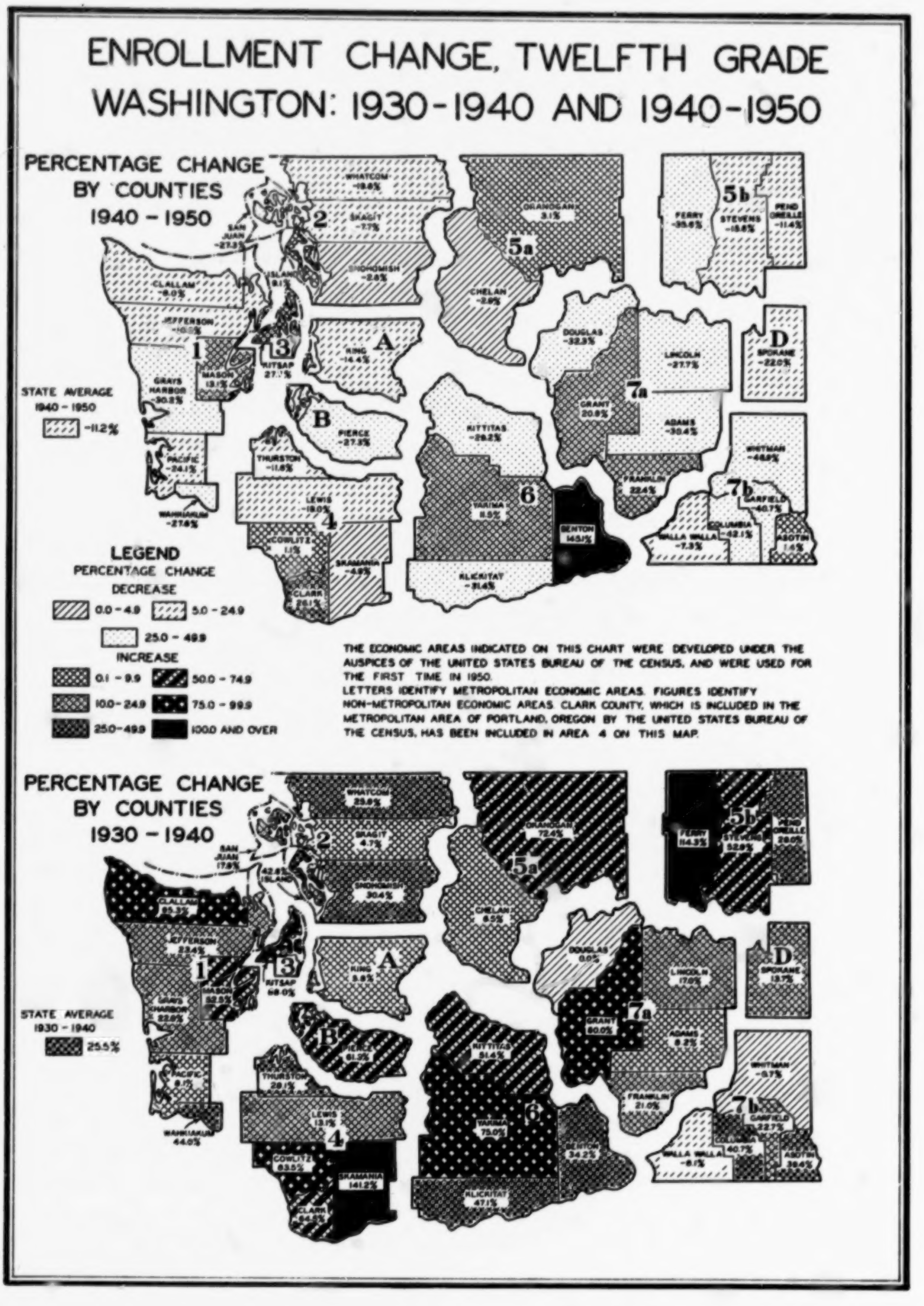
[1] Any comparisons of enrollment involving data before 1950 are determined on a school-year basis. October 1st enrollment statistics by counties for the entire state of Washington are not available before 1950.


ENROLLMENT CHANGE, FIRST GRADE
WASHINGTON: 1930-1940 AND 1940-1950
PERCENTAGE CHANGE BY COUNTIES 1940 - 1950
WHATCOM 26.0%
SKAGIT 28.0%
SNOHOMISH 49.5%
SAN JUAN 36.6%
ISLAND 129.1%
CLALLAM 23.0%
JEFFERSON 23.2%
GRAYS HARBOR 13.9%
MASON 33.6%
KITSAP 96.4%
KING 79.3%
PIERCE 69.9%
PACIFIC 55.8%
WAHKIAKUM 16.4%
THURSTON 42.4%
LEWIS 16.9%
COWLITZ 28.0%
SKAMANIA -7.3%
CLARK 106.5%
OKANOGAN 24.1%
CHELAN 16.7%
FERRY -13.1%
STEVENS -6.6%
PEND OREILLE -4.0%
DOUGLAS 76.6%
LINCOLN 23.3%
SPOKANE 75.6%
GRANT 136.6%
ADAMS 16.2%
KITTITAS 7.0%
YAKIMA 33.6%
FRANKLIN 166.6%
BENTON 446.9%
KLICKITAT 30.9%
WHITMAN 24.9%
GARFIELD 27.7%
COLUMBIA 0.0%
WALLA WALLA 56.2%
ASOTIN 73.0%
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE AVERAGE 1940-1950
▨ 56.2%
LEGEND
PERCENTAGE CHANGE
DECREASE
▨ 0.0 - 4.9
▨ 5.0 - 24.9
▨ 25.0 - 49.9
INCREASE
▨ 0.1 - 9.9
▨ 10.0 - 24.9
▨ 25.0 - 49.9
▨ 50.0 - 74.9
▨ 75.0 - 99.9
■ 100.0 AND OVER
PERCENTAGE CHANGE BY COUNTIES 1930 - 1940
WHATCOM -18.6%
SKAGIT -5.5%
SNOHOMISH -7.7%
SAN JUAN -42.1%
ISLAND -11.3%
CLALLAM 10.2%
JEFFERSON -0.8%
GRAYS HARBOR -28.7%
MASON -16.2%
KITSAP 48.7%
KING -24.4%
PIERCE -13.2%
PACIFIC -31.1%
WAHKIAKUM -42.7%
THURSTON 2.3%
LEWIS -12.7%
COWLITZ 6.7%
SKAMANIA 29.4%
CLARK -13.8%
OKANOGAN 8.9%
CHELAN -34.3%
FERRY -33.7%
STEVENS -20.4%
PEND OREILLE -12.5%
DOUGLAS -30.7%
LINCOLN -27.7%
SPOKANE -16.4%
GRANT 62.2%
ADAMS -37.1%
KITTITAS -8.3%
YAKIMA -5.3%
FRANKLIN -9.7%
BENTON -13.6%
KLICKITAT -15.6%
WHITMAN -31.1%
GARFIELD -47.6%
COLUMBIA -18.7%
WALLA WALLA -10.6%
ASOTIN -36.6%
STATE AVERAGE 1930-1940
▨ -15.2%

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

Figure 4:5



ENROLLMENT CHANGE, TWELFTH GRADE
WASHINGTON: 1930-1940 AND 1940-1950

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.
LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

PERCENTAGE CHANGE BY COUNTIES 1940 - 1950
WHATCOM -19.6%
SKAGIT -7.7%
SAN JUAN -27.3%
ISLAND 8.1%
SNOHOMISH -2.6%
CLALLAM -9.0%
JEFFERSON -10.6%
MASON 13.1%
KITSAP 27.1%
GRAYS HARBOR -30.2%
KING -14.4%
PIERCE -27.3%
THURSTON -11.6%
PACIFIC -24.1%
WAHKIAKUM -27.6%
LEWIS -18.0%
COWLITZ 1.1%
SKAMANIA -4.9%
CLARK 26.1%
OKANOGAN 3.1%
CHELAN -2.9%
FERRY -35.6%
STEVENS -15.6%
PEND OREILLE -11.4%
DOUGLAS -32.3%
LINCOLN -27.7%
SPOKANE -22.0%
GRANT 20.9%
ADAMS -30.4%
KITTITAS -28.2%
YAKIMA 11.5%
BENTON 145.1%
KLICKITAT -31.4%
FRANKLIN 22.4%
WHITMAN -46.6%
GARFIELD -40.7%
COLUMBIA -42.1%
WALLA WALLA -7.3%
ASOTIN 1.4%
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE AVERAGE 1940 - 1950
▨ -11.2%
LEGEND
PERCENTAGE CHANGE
DECREASE
▨ 0.0 - 4.9
▨ 5.0 - 24.9
▨ 25.0 - 49.9
INCREASE
▨ 0.1 - 9.9
▨ 10.0 - 24.9
▨ 25.0 - 49.9
▨ 50.0 - 74.9
▨ 75.0 - 99.9
■ 100.0 AND OVER
PERCENTAGE CHANGE BY COUNTIES 1930 - 1940
WHATCOM 25.8%
SKAGIT 4.7%
SAN JUAN 17.6%
42.6% ISLAND
SNOHOMISH 30.4%
CLALLAM 85.3%
JEFFERSON 23.4%
MASON 52.5%
KITSAP 68.0%
GRAYS HARBOR 22.6%
KING 3.6%
PIERCE 61.2%
THURSTON 28.1%
PACIFIC 8.1%
WAHKIAKUM 44.0%
LEWIS 13.1%
COWLITZ 83.5%
SKAMANIA 141.2%
CLARK 64.5%
OKANOGAN 72.4%
CHELAN 6.5%
FERRY 114.3%
STEVENS 52.8%
PEND OREILLE 28.0%
DOUGLAS 0.0%
LINCOLN 17.0%
SPOKANE 13.7%
GRANT 80.0%
ADAMS 8.2%
KITTITAS 51.4%
YAKIMA 75.0%
BENTON 34.2%
KLICKITAT 47.1%
FRANKLIN 21.0%
WHITMAN -0.7%
GARFIELD 22.7%
COLUMBIA 40.7%
WALLA WALLA -0.1%
ASOTIN 39.4%
STATE AVERAGE 1930 - 1940
▨ 25.5%

Figure 4:6

grade determines the size of enrollment in the successive grades, since the overwhelming majority of pupils moves every year to the next higher grade.

It is important to know the number of pupils in the twelfth grade of high school, not only to estimate the size of the entering freshman class in colleges and universities in the state the following year, but also to study the changing trend in size of the twelfth grade.

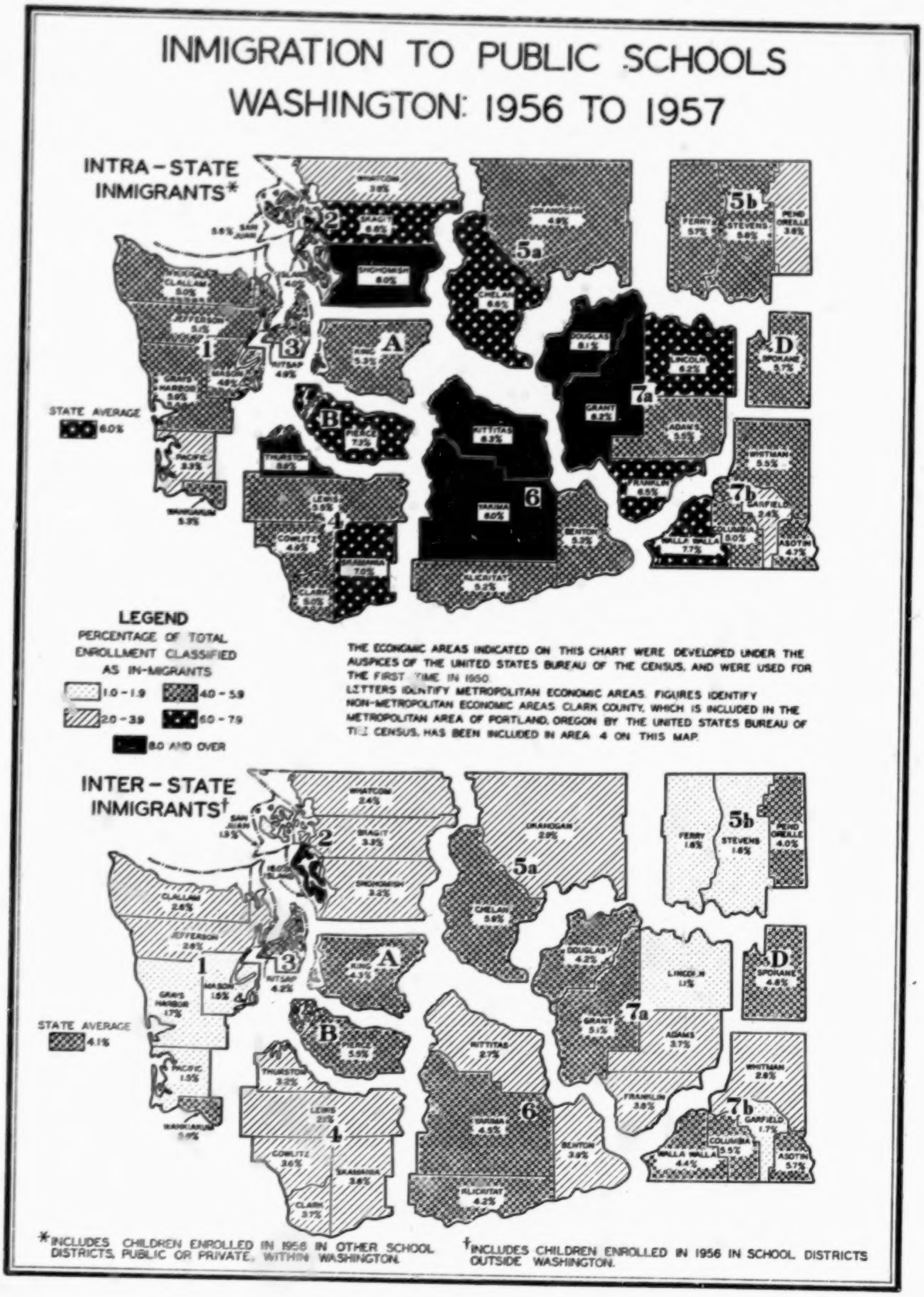
Between 1900-01 and 1915-16, twelfth grade enrollment in public schools doubled every fifth year. During the 1900-01 school-year there were only 586 pupils in this grade. Twenty years later, there were 6,731 boys and girls enrolled in the twelfth grade of schools in the state of Washington, and by 1940-41, over 22,000 pupils were in the twelfth grade. A decline took place for a few years after World War II, but the trend resumed its upward climb, reaching 31,573 in 1959 — the largest senior class enrollment in the history of the state.

An increase of 339.4 per cent during the 1900-10 decade, represented the highest rate of growth ever to occur in the state. In contrast, a decrease of 11.2 per cent was observed in twelfth grade enrollment during the 1940-50 decade. A striking exception to this trend was Benton County, which showed an extraordinary increase of 145.1 per cent in twelfth grade enrollment. During the 1940-50 decade, Benton County was the second fastest growing county in the nation, mainly because of the establishment of a large atomic production plant which brought in thousands of workers and their families. Among the counties which showed large decreases were Whitman (46.9 per cent), Columbia (40.1 per cent) and Garfield (40.7 per cent). However, more recent data indicate relatively high increases in twelfth grade enrollment throughout the state. For example, between 1950 and 1957, most of the counties comprising Economic Area 7a showed relatively large increases in twelfth-grade enrollment. Grant County had an increase of 129.2 per cent, Franklin County, 72.5 per cent and Adams County had 84.4 per cent. By contrast, Lincoln County registered only a 10.1 per cent increase. Other counties with relatively high increases in twelfth grade enrollment were San Juan (66.7 per cent), Island (63.1 per cent) and Ferry (65.5 per cent).

Inmigration as a Factor in the Growth of Public School Enrollment. In an effort to measure the significance of migration on school enrollment trends, the Washington State Department of Public Instruction, at the suggestion of the Legislative Budget Committee and the State Census Board, has been compiling data since 1955 on inmigration of pupils by school districts. Although data on outmigration are essential in order to provide a complete picture of migration trends, it is not possible for school authorities to obtain adequate and reliable information on pupils who move out of a district. Nevertheless, statistics covering inmigration provide some indication of the significance of migration on school enrollment.

Data on inmigration show the number of children that move into each school district, either (1) from another state or (2) from another district within the state of Washington.

According to data compiled as of October 1, 1955, inter-state and inter-district inmigrants accounted for 11.1 per cent of the total enrollment in all publicly-supported elementary and secondary schools in the state of Washington. Table 4:III shows that among the total enrollment of 482,373 pupils in the state, there were 33,802 (7.0 per cent) who crossed the boundary of at least one district within the state prior to their registration on October 1st.


INMIGRATION TO PUBLIC SCHOOLS
WASHINGTON: 1956 TO 1957
INTRA-STATE INMIGRANTS*
WHATCOM 3.8%
SAN JUAN 5.6%
SKAGIT 6.8%
2
SNOHOMISH 8.0%
ISLAND 4.0%
CLALLAM 5.0%
JEFFERSON 5.1%
1
3
KITSAP 4.9%
KING 5.3%
A
MASON 4.8%
GRAYS HARBOR 5.0%
STATE AVERAGE 6.0%
PACIFIC 3.3%
WAHKIAKUM 5.3%
B
PIERCE 7.3%
THURSTON 8.0%
LEWIS 5.5%
4
COWLITZ 4.9%
SKAMANIA 7.0%
CLARK 5.0%
OKANOGAN 4.9%
5a
CHELAN 6.6%
KITTITAS 8.3%
YAKIMA 8.0%
6
KLICKITAT 5.2%
BENTON 5.2%
DOUGLAS 8.1%
GRANT 8.2%
7a
LINCOLN 6.2%
ADAMS 5.5%
FRANKLIN 6.5%
5b
FERRY 5.7%
STEVENS 5.0%
PEND OREILLE 3.8%
D
SPOKANE 5.7%
WHITMAN 5.5%
7b
GARFIELD 2.4%
COLUMBIA 5.0%
WALLA WALLA 7.7%
ASOTIN 4.7%
LEGEND
PERCENTAGE OF TOTAL ENROLLMENT CLASSIFIED AS IN-MIGRANTS
1.0 - 1.9
2.0 - 3.9
4.0 - 5.9
6.0 - 7.9
8.0 AND OVER
INTER-STATE INMIGRANTS†
WHATCOM 2.4%
SAN JUAN 1.9%
SKAGIT 3.3%
2
ISLAND
SNOHOMISH 3.2%
CLALLAM 2.6%
JEFFERSON 2.6%
1
3
KITSAP 4.2%
KING 4.3%
A
MASON 1.6%
GRAYS HARBOR 1.7%
STATE AVERAGE 4.1%
PACIFIC 1.5%
WAHKIAKUM 5.0%
B
PIERCE 5.5%
THURSTON 3.2%
LEWIS 2.1%
4
COWLITZ 3.6%
SKAMANIA 3.6%
CLARK 3.7%
OKANOGAN 2.0%
5a
CHELAN 3.6%
KITTITAS 2.7%
YAKIMA 4.5%
6
KLICKITAT 4.2%
BENTON 3.8%
DOUGLAS 4.2%
GRANT 5.1%
7a
LINCOLN 1.1%
ADAMS 3.7%
FRANKLIN 3.8%
5b
FERRY 1.6%
STEVENS 1.6%
PEND OREILLE 4.0%
D
SPOKANE 4.8%
WHITMAN 2.8%
7b
GARFIELD 1.7%
COLUMBIA 5.5%
WALLA WALLA 4.4%
ASOTIN 5.7%

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

*INCLUDES CHILDREN ENROLLED IN 1956 IN OTHER SCHOOL DISTRICTS, PUBLIC OR PRIVATE, WITHIN WASHINGTON.

†INCLUDES CHILDREN ENROLLED IN 1956 IN SCHOOL DISTRICTS OUTSIDE WASHINGTON.

Figure 4:7

Only 19,637 (4.1 per cent) of the pupils came from a school district located outside of Washington. The corresponding proportions were slightly lower on October 1, 1956. (Table 4:III) On October 1, 1957, there were 31,880, or 1,922 fewer inter-district migrants than in 1955, but the number of pupils from school districts outside the state of Washington increased by 2,102 — from 19,637 on October 1, 1955, to 21,739 on October 1, 1957.

TABLE 4:III

INMIGRATING PUPILS ENROLLED IN PUBLIC SCHOOLS

STATE OF WASHINGTON: OCTOBER 1st 1955, 1956 AND 1957

Source of Inmigration	Year					
	1957		1956		1955	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Total enrollment. . . .	527,792	100.0	501,213	100.0	482,373	100.0
Total inmigrants . .	53,619	10.2	49,623	9.9	53,439	11.1
Inter-district . . .	31,880	6.0	30,800	6.2	33,802	7.0
Public schools. .	30,193	5.7	29,173	5.8	32,124	6.7
Private schools .	1,687	0.3	1,626	0.3	1,678	0.4
Inter-state	21,739	4.1	18,823	3.8	19,637	4.1

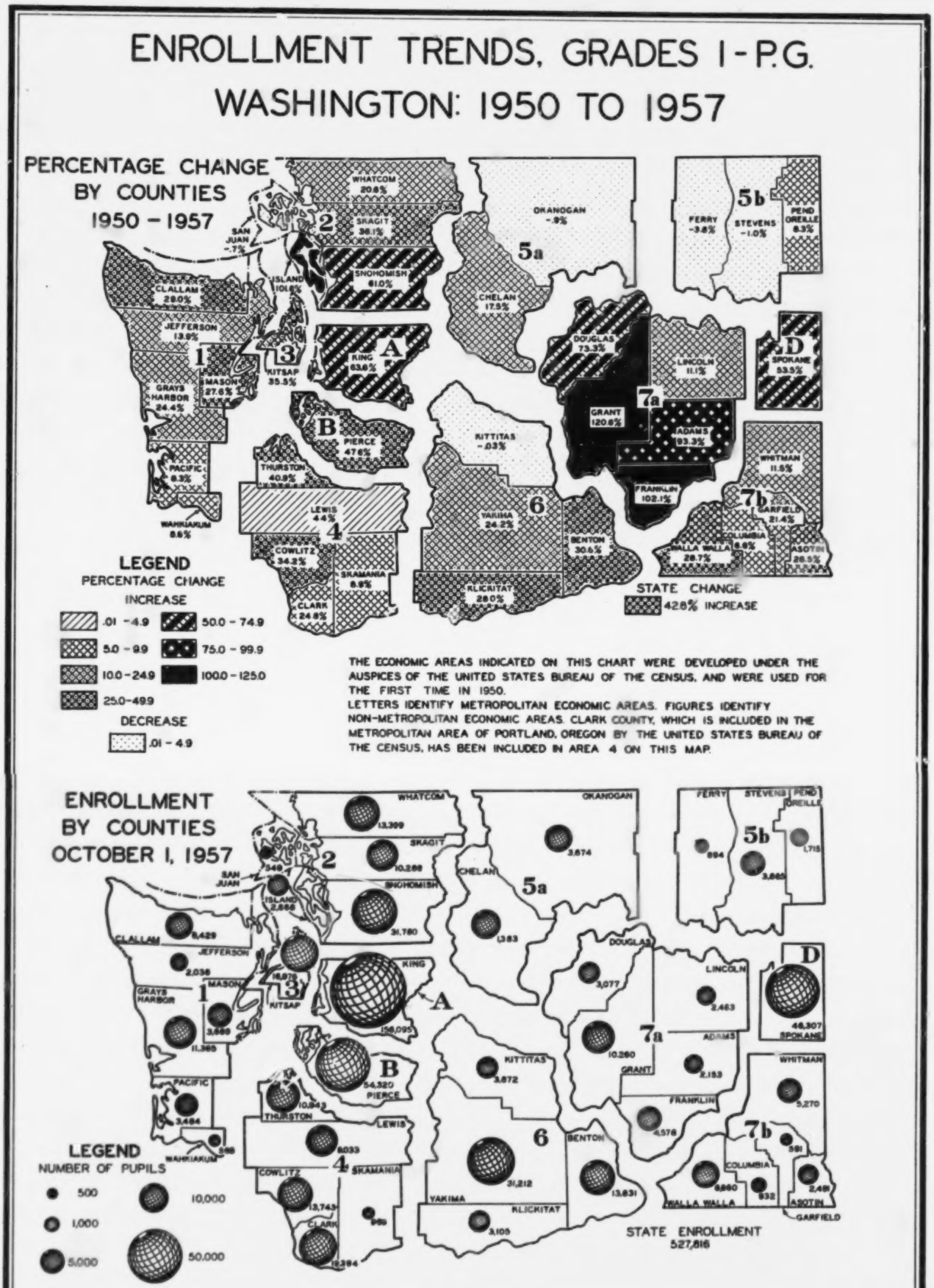
Of the inmigrants who came from another state, approximately two-thirds enrolled in schools located in the western part of the state — the remaining one-third was distributed among the counties in the eastern part of the state. Over one-half of the out-of-state migrants enrolled in schools located in metropolitan areas.

On October 1, 1955, there were 4,915 (25.0 per cent) of the out-of-state pupils registered in schools located in King County. The corresponding figures in 1956 and 1957 were 4,977 (26.4 per cent) and 6,643 pupils (30.6 per cent), respectively. Pierce County ranked second with 2,784 (14.2 per cent) on October 1, 1955; the number of out-of-state pupils increased to 3,151 (16.7 per cent) in 1956. In 1957, there were 3,011 out-of-state inmigrants, or 13.9 per cent of the total. Figure 4:7 portrays inmigration to public schools, for each of the 39 counties, as of the beginning of the 1957 school-year. In terms of the percentage of total enrollment classified as out-of-state inmigrants, it can be observed that the counties most strongly affected by this kind of migration were Island, Chelan, Asotin, Columbia, Pierce, Grant, Spokane, Walla Walla, King, Kitsap and Klickitat.

The counties which recorded over 8.0 per cent of their total public-school enrollment as inter-district migrants were Kittitas, Yakima, Grant, Douglas and Snohomish.

Recent Changes in Total Enrollment. On October 1, 1950, there were 369,555 pupils enrolled in all grades, including the post-graduate, of elementary and secondary public schools in the state of Washington, compared to 527,816 pupils on October 1, 1957. This represents an increase in total enrollment of 42.8 per cent during the seven-year period.

Comparison between Figure 4:4, portraying by counties, decennial population change due to net migration, and Figure 4:8, illustrating percentage change in total enrollment during the seven-year period beginning with October 1, 1950, strongly suggests a noticeable re-


ENROLLMENT TRENDS, GRADES 1-P.G.
WASHINGTON: 1950 TO 1957
PERCENTAGE CHANGE BY COUNTIES 1950 - 1957
WHATCOM 20.8%
SKAGIT 36.1%
SAN JUAN -.7%
SNOHOMISH 61.0%
ISLAND 101.6%
CLALLAM 29.0%
JEFFERSON 13.9%
KITSAP 35.5%
KING 63.6%
MASON 27.6%
GRAYS HARBOR 24.4%
PIERCE 47.6%
PACIFIC 8.3%
THURSTON 40.9%
LEWIS 4.4%
WAHKIAKUM 8.8%
COWLITZ 34.2%
SKAMANIA 8.9%
CLARK 24.8%
OKANOGAN -.9%
CHELAN 17.5%
FERRY -3.8%
STEVENS -1.0%
PEND OREILLE 8.3%
DOUGLAS 73.3%
LINCOLN 11.1%
SPOKANE 53.5%
GRANT 120.6%
ADAMS 93.3%
KITTITAS -.03%
FRANKLIN 102.1%
WHITMAN 11.5%
YAKIMA 24.2%
BENTON 30.6%
GARFIELD 21.4%
COLUMBIA 6.6%
WALLA WALLA 28.7%
ASOTIN 28.5%
KLICKITAT 28.0%
1
2
3
4
5a
5b
6
7a
7b
A
B
D
LEGEND
PERCENTAGE CHANGE
INCREASE
.01 - 4.9
5.0 - 9.9
10.0 - 24.9
25.0 - 49.9
50.0 - 74.9
75.0 - 99.9
100.0 - 125.0
DECREASE
.01 - 4.9
STATE CHANGE
42.8% INCREASE
ENROLLMENT BY COUNTIES OCTOBER 1, 1957
WHATCOM 13,309
SKAGIT 10,288
SAN JUAN 549
ISLAND 2,868
SNOHOMISH 31,780
CLALLAM 5,429
JEFFERSON 2,036
KITSAP 16,876
KING 156,095
GRAYS HARBOR 11,365
MASON 3,689
PIERCE 54,320
PACIFIC 3,484
WAHKIAKUM 599
THURSTON 10,843
LEWIS 8,033
COWLITZ 13,743
SKAMANIA 960
CLARK 18,384
OKANOGAN 3,674
CHELAN 1,383
FERRY 894
STEVENS 3,865
PEND OREILLE 1,715
DOUGLAS 3,077
LINCOLN 2,463
SPOKANE 46,307
GRANT 10,280
ADAMS 2,153
KITTITAS 3,872
FRANKLIN 4,576
WHITMAN 5,270
GARFIELD 591
YAKIMA 31,212
BENTON 13,631
WALLA WALLA 6,860
COLUMBIA 932
ASOTIN 2,481
KLICKITAT 3,105
LEGEND
NUMBER OF PUPILS
500
1,000
5,000
10,000
50,000
STATE ENROLLMENT
527,816

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

Figure 4:8

lationship between size of net migration and growth in total enrollment of public schools. In particular, Grant County and Franklin County, whose total public school enrollments grew in seven years from 4,651 to 10,260, and from 2,265 to 4,578, respectively, also had registered a relatively high numerical population increase from net migration during the 1940-50 decade. Furthermore, a similar association can be noted in the case of the three Metropolitan Economic Areas — King, Pierce, and Spokane Counties. Increases in total enrollment for these counties have been in direct proportion to their growth by net migration. In King County, the number of pupils in all grades jumped from 95,403 in 1950 to 156,095 in 1957, representing a 63.6 per cent increase during the seven years. Spokane County had a total enrollment of 30,216 pupils in 1950, and 46,387 in 1957, or 53.5 per cent more in 1957 than seven years before. Pierce County, with the second largest enrollment in the state, had 36,804 pupils enrolled in public schools on October 1, 1950, compared to 54,320 on October 1, 1957.

Among other counties which registered high enrollment increases between 1950 and 1957 were Adams (93.3 per cent), Douglas (73.3 per cent) and Snohomish (61.0 per cent). In contrast, a few counties showed relatively slight increases in enrollment, or actually recorded small decreases. Three of these counties, Okanogan, Ferry and Stevens, are located in the northeastern part of the state and one, Kittitas, is in the central part of the state.

GEOGRAPHICAL DISTRIBUTION OF ENROLLMENT

The geographical distribution of public school enrollment is closely related to the distribution of population. In 1957, the western part of the state, with approximately 69.5 per cent of the population, accounted for 69.9 per cent of the pupils enrolled in publicly-supported elementary and secondary schools. The close relationship between total population and school enrollment also can be observed in the Metropolitan Areas. In 1957, King County ranked first in population with approximately 31.4 per cent of the total in the state, while its proportion of total pupils enrolled in elementary and secondary public schools was 29.6 per cent. Pierce County and Spokane County showed slightly smaller proportions of total enrollment than might be expected, based on the size of their populations. Of all pupils registered in elementary and secondary public schools in the state of Washington, Pierce County had 10.3 per cent, while its proportion of the state's population was 11.5 per cent. In Spokane County, enrollment amounted to 8.8 per cent of the state enrollment, compared to about 10.0 per cent for the county's proportion of the total population.

Among the non-metropolitan counties reporting relatively high proportions of pupils at the beginning of the 1957 school year are Snohomish (6.0 per cent), Yakima (5.9 per cent) and Kitsap (3.4 per cent). Of the 527,816 pupils registered in grades one through post-graduate in public schools in the state, the following counties reported enrollments ranging from 0.2 per cent to 1.0 per cent of the total: Columbia, Ferry, Skamania, Pend Oreille, Adams, Jefferson, Asotin, Island, Lincoln, Douglas, Klickitat, Kittitas, Mason, Pacific, Stevens, Franklin, and Whitman. Garfield, San Juan and Wahkiakum Counties each had less than 0.1 per cent of the total enrollment.

School Enrollment by School Districts: October 1, 1957. There were 482 school districts in the state of Washington in 1957. Of this number, 462 districts were considered active, having had at least a few pupils enrolled. The Seattle School District, as might be expected, with 83,369 pupils registered on October 1, 1957, had the largest enrollment in the state. Next in rank was Spokane School District with 30,258 pupils, followed by Tacoma School District with 26,386 pupils. Highline District, located south of Seattle, numbered 18,339 pupils and ranked fourth. Other districts in rank order included: Vancouver (Clark County) with 9,974 pupils, fifth; Everett (Snohomish County), 9,674 pupils, sixth; Shoreline (King County), 9,131 pupils, seventh; and Yakima (Yakima County), 9,043 pupils, eighth. In addition, nine school districts in the state of Washington had enrollments ranging between 5,000 and 8,999 pupils. These were Edmonds (Snohomish County), 8,675 pupils; Bremerton (Kitsap County), 8,156 pupils; Renton (King County), 7,542 pupils; Bellingham (Whatcom County), 7,167 pupils; Longview (Cowlitz County), 6,737 pupils; Bellevue (King County), 6,516 pupils; Richland (Benton County), 6,159 pupils; Clover Park (Pierce County), 5,778 pupils; and Kennewick (Benton County), 5,030 pupils.

On October 1, 1957, the aforementioned 17 school districts included about fifty per cent of the total publicly-supported elementary and secondary school enrollment in the state. The remaining 445 school districts had enrollments varying between 5 and 4,642.

SUMMARY

Three components of population change have been instrumental in bringing about significant shifts in the number of pupils attending elementary and secondary schools in the state. These components are: (1) fertility, (2) mortality and (3) migration.

The high level of fertility which began in the late 1940's, coupled with extraordinarily large number of inmigrants during the war years, resulted in an unprecedented expansion of the public school system. This process began to show its effects in the early 1950's on the level of elementary grades, and toward the end of the decade extended into the secondary school grades. The rapid growth of population in the state of Washington during and following World War II is by no means a phenomenon of temporary duration. This trend will continue as long as the high birth rate is maintained and the state has the economic potential to attract and retain a sizeable flow of inmigrants.

Metropolitan Areas will continue to show the greatest increases during the next several years. These Areas, coterminous with the largest counties in the state -- King, Pierce and Spokane -- accounted for two-thirds of the decennial population increase between 1940 and 1950, and between 1950 and 1960.

The size of enrollment in individual school districts in the state on October 1, 1957, varied from 83,369 pupils in Seattle to as small as five or ten pupils in a few rural districts.

CHAPTER 5

ADMINISTRATIVE ADJUSTMENT OF SCHOOLS TO CHANGE

Factors relating to growth, distribution and composition of the population may have far-reaching influence on administrative organization and policy of the educational system.

During the past several decades, important demographic changes have occurred, intensified or accelerated as a consequence of two world wars and a severe economic depression. In addition, other changes, such as the growing importance of manufacturing and commerce and the decline of extractive industries, have been influenced by alterations in the basic economy of the state. Technological changes, particularly in transportation and communication, also have been important factors.

In an attempt to analyze relationships between population trends, school enrollment and administrative change, certain statistical indices were utilized to determine with relative objectivity some of the more important adjustments that have occurred. Unfortunately, the number and type of available indices are extremely limited. Accordingly, it was necessary to use the following series of data, considered to be the most complete and reliable: (1) number of school districts, (2) number of bus miles driven annually, (3) total number of pupils transported two miles or more to school, (4) number of school buildings used, (5) pupil-teacher ratios and (6) teachers' mean annual salary.

HISTORICAL DEVELOPMENT OF SCHOOL DISTRICT REORGANIZATION

Reorganization of school districts is perhaps the most significant administrative adjustment to changes in size, distribution and composition of population and enrollment.

Since 1889, when Washington attained statehood, there has been approximately a tenfold increase in the number of pupils enrolled in public schools.[1] There were 55,964 pupils enrolled in grades 1-12 in 1890, compared with 551,692 in 1957. High school enrollment has shown the sharpest increase during this period. In 1889, less than one per cent of the total public school enrollment was in grades 9-12, compared to approximately 25 per cent in 1957.

The total number of administrative school districts in the state reached a peak in 1910, after which a steady decline occurred. This change has been accompanied by a continuous increase in enrollment throughout the period. In 1889, over a thousand districts were serving 55,964 pupils in grades 1-12; by 1910 the number had risen to 2,710 districts serving 216,267 pupils. By 1957, however, there were 482 districts with 551,692 pupils enrolled.

---

[1] Enrollment data in this chapter are based on the school-year. October 1st enrollment data by counties for the entire state of Washington are not available before 1950.

Historically, school districts in the state of Washington developed in a haphazard manner. Strayer notes that:

> The early settlers who first took up lands in the most fertile valleys located their schools conveniently and drew the boundaries of their districts without reference to other settlements...and school districts were formed without consideration for boundaries or for the financial ability of the adjacent territory.[2]

Largely as a consequence of this situation, many districts could offer only marginal educational programs at the elementary level and often no high school program at all.

It became apparent to school administrators, even during the early history of the state, that the chaotic establishment of school districts was ineffective and wasteful. Around 1900, a concerted effort was made to improve the school district system. The following important measures were taken: (1) Provision for establishing union high school districts dates from a series of legislative acts passed in 1897, 1899 and 1901. The acts permitted the organization of two or more contiguous elementary districts into a union high school district for the purpose of establishing and maintaining a high school for the rapidly expanding enrollments in grades 9-12. (2) The law providing for the consolidation of two or more contiguous elementary school districts may be said to date from 1903, although some earlier legislation permitted consolidation of school districts in the case of the consolidation of towns. (3) In 1915, the Legislature passed a law permitting the formation of consolidated school districts by a majority vote in each school district. Fitzwater points out that by 1931-32 there were 400 consolidated districts in the state, the majority of which were mergers resulting from administrative units too small to maintain satisfactory educational programs at reasonable costs.[3] (4) In 1941, after extensive study of the problem of efficient school organization, the Legislature passed the School District Reorganization Act. This law expired in 1945, was reenacted in similar form in 1947 and amended in 1955. Amendments eliminated several weaknesses which had become apparent during the interim. They give the State Board of Education power to approve or disapprove of redistricting proposals, and require that 60 per cent of the total votes cast in a reorganization election be favorable to ratify the proposal, instead of a favorable majority vote in each component district.

These statutes have reduced the total number of school districts in the state by 82 per cent since 1910 — a decline from 2,710 districts in 1910 to 482 districts in 1957.

REORGANIZATION AND ENROLLMENT TRENDS
SUB-AREAS OF THE STATE: 1900 TO 1957

Western and Eastern Washington. The lower panels of Figure 5:1 depict changes in enrollment and indices of administrative adjustment in Western and Eastern Washington.

Historically, the Western portion of the state was developed first and has consistently sustained a larger population. In 1950, 70 per cent of the state's population resided west of the Cascade Range, as did 68 per cent of the total pupils enrolled in grades 1-12. Total enrollment in Western Washington in 1900 was 73,392 and by 1957 it was 381,792, representing a 420 per cent increase. During the same period, enrollment in Eastern Washington increased from 48,833 to 169,900, which represents a growth of 248 per cent.

---

[2] George D. Strayer, A Report of a Survey of Public Education in the State of Washington, State Printing Office, Olympia, Washington, 1946, p. 50.

[3] C. O. Fitzwater, School District Reorganization, U. S. Department of Health, Education and Welfare, Washington, D. C., 1957, p. 296.

Although there was a considerable difference between Western and Eastern Washington in percentage change in enrollment for the entire period since 1900, the increase between 1940 and 1957 was 76 per cent in the West and 70 per cent in the East. The West now has 69.2 per cent of the state's total enrollment in grades 1-12, compared with 68.4 per cent in 1940.

Since 1900, the number of school districts has been reduced from 1,117 to 230 in Western Washington, and from 1,025 to 252 in the East. Although the proportionate reduction in number of school districts in both parts of the state has been about the same — 79.4 per cent in Western and 75.4 per cent in Eastern Washington — only 44.6 per cent of the total reduction in the West took place after 1940, while in the East, 61.4 per cent of the total reduction occurred after 1940. This difference can be accounted for largely by recent improvements in roads and transportation facilities in the rural areas of Eastern Washington.

Economic Areas. Figures 5:2, 5:3 and 5:4 present graphically several indices of administrative change in the educational system since 1900. The curves show enrollment trends, number of school districts, school bus transportation and number of buildings in use.

The long-term enrollment trend in Economic Areas has been upward for each grade category. The only exceptions are Economic Areas 5b and 7b. (Figures 5:3 and 5:4) Both of these areas reached peak enrollments in the early 1930's, then steadily declined until immediately after the end of World War II, when an upward trend occurred.

Changes in total enrollment reflect differential increases and/or decreases in elementary and high school grades. The relative importance of trends in these two categories can be seen by comparing the curves for each one in Figures 5:1 through 5:4. All Economic Areas have experienced sharp increases in high school enrollment since 1900, reflecting a nation-wide trend in high school attendance and rising educational standards, as well as increase in population.

Metropolitan and Non-Metropolitan Areas. Examination of the upper panels of Figure 5:1 reveals a marked shift in the number and proportion of pupils enrolled in Metropolitan and Non-Metropolitan Areas since 1900. In 1900, there were 48,788 pupils enrolled in Metropolitan Areas, compared with 73,437 in Non-Metropolitan Areas. The Metropolitan school enrollment exceeded the Non-Metropolitan for the first time in 1955. In 1957, there were 284,194 enrolled pupils in Metropolitan Areas and 267,498 in Non-Metropolitan Areas.

During the period from 1930 to 1940, which included the depression, enrollment in grades 1-12 declined in both Areas — from 179,808 to 171,800 in Non-Metropolitan Areas and from 163,006 to 144,465 in Metropolitan Areas. However, mainly because of the high birth rates during the 1920's, high school enrollment increased, while the declining birth rates of the thirties created a substantial decrease in elementary enrollment in both Met-

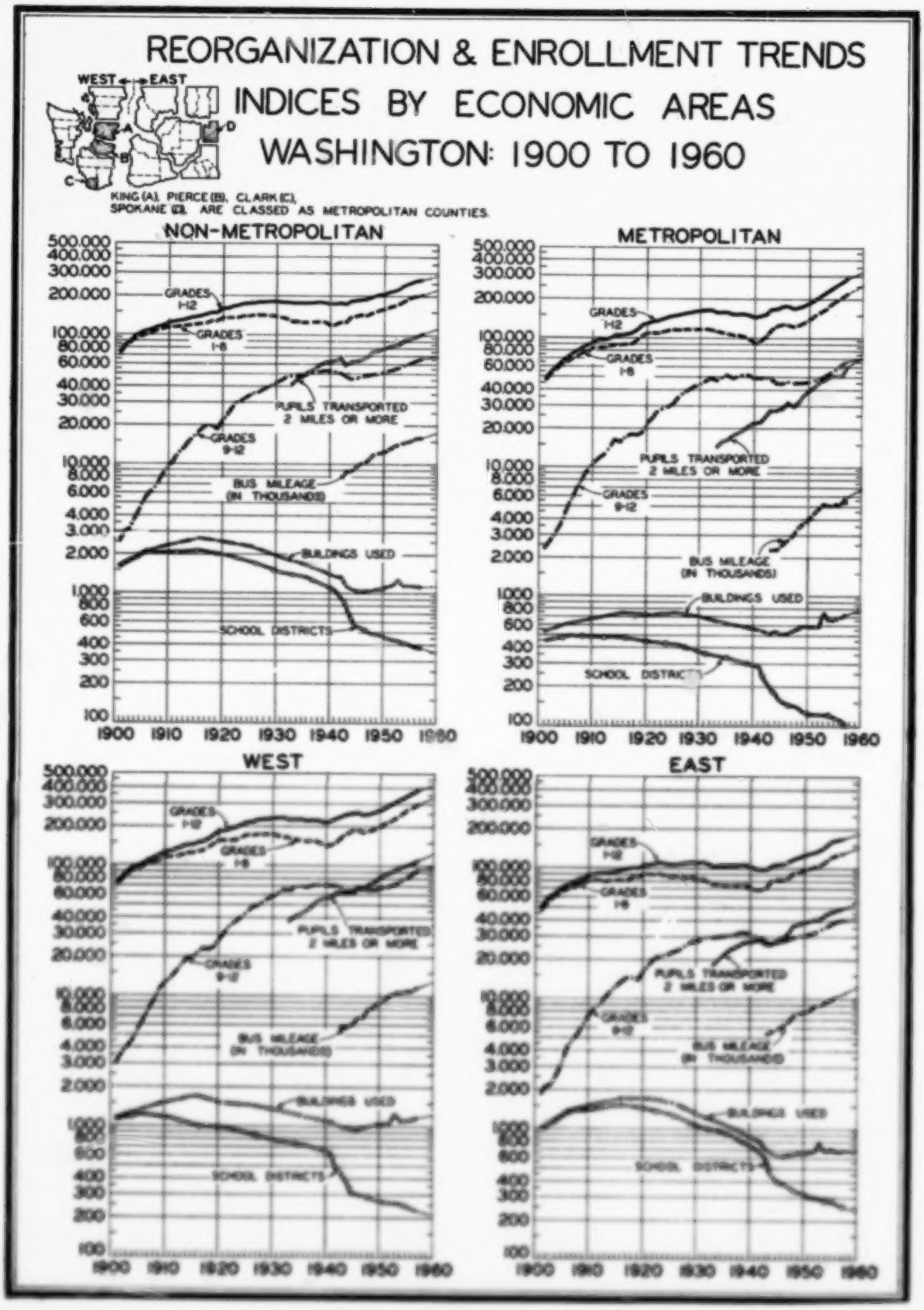

REORGANIZATION & ENROLLMENT TRENDS
INDICES BY ECONOMIC AREAS
WASHINGTON: 1900 TO 1960
WEST
EAST
A
B
C
D
KING (A), PIERCE (B), CLARK (C), SPOKANE (D), ARE CLASSED AS METROPOLITAN COUNTIES.
NON-METROPOLITAN
METROPOLITAN
WEST
EAST
GRADES 1-12
GRADES 1-8
GRADES 9-12
PUPILS TRANSPORTED 2 MILES OR MORE
BUS MILEAGE (IN THOUSANDS)
BUILDINGS USED
SCHOOL DISTRICTS
500,000
400,000
300,000
200,000
100,000
80,000
60,000
40,000
30,000
20,000
10,000
8,000
6,000
4,000
3,000
2,000
1,000
800
600
400
300
200
100
1900
1910
1920
1930
1940
1950
1960

Figure 5:1

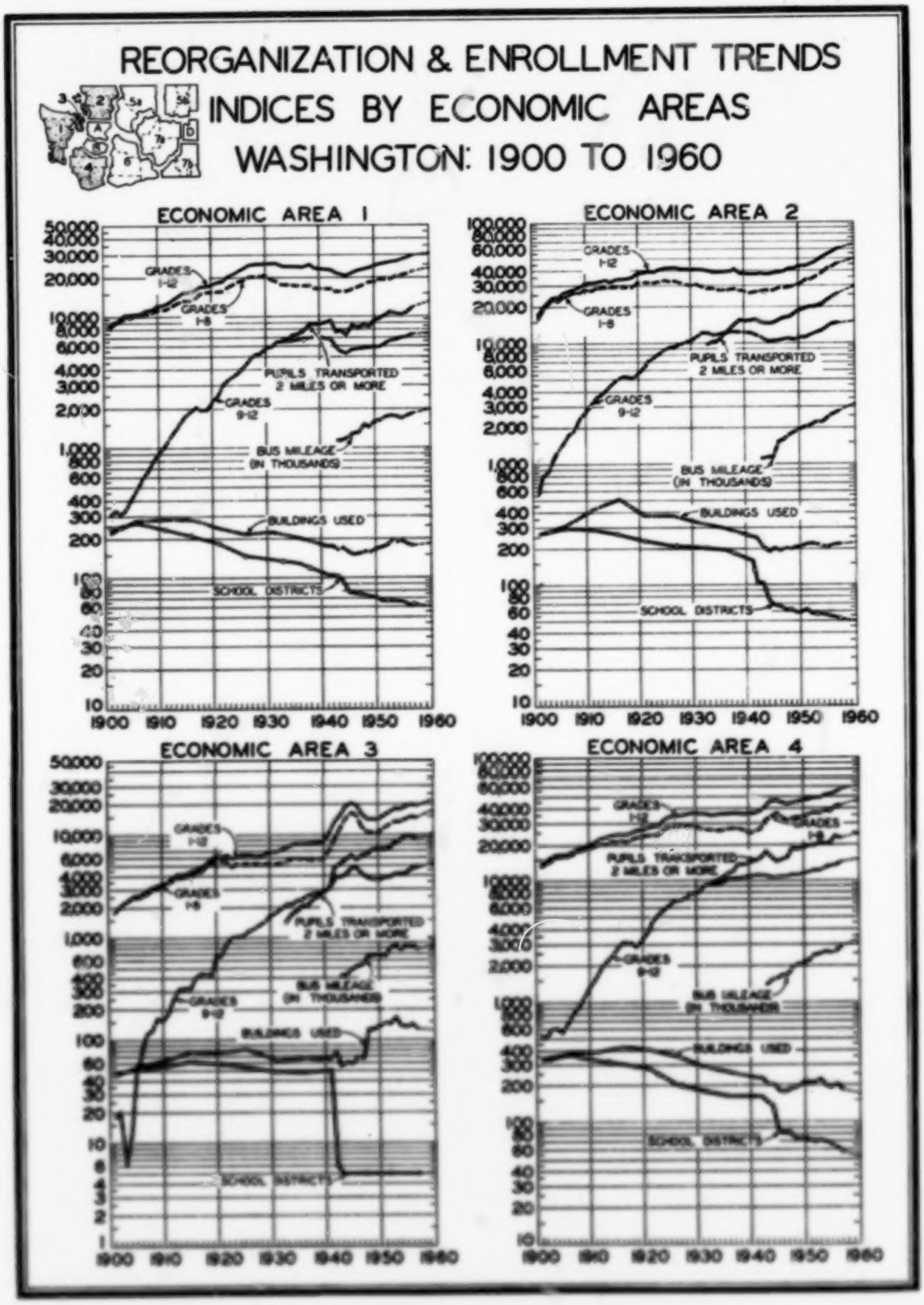
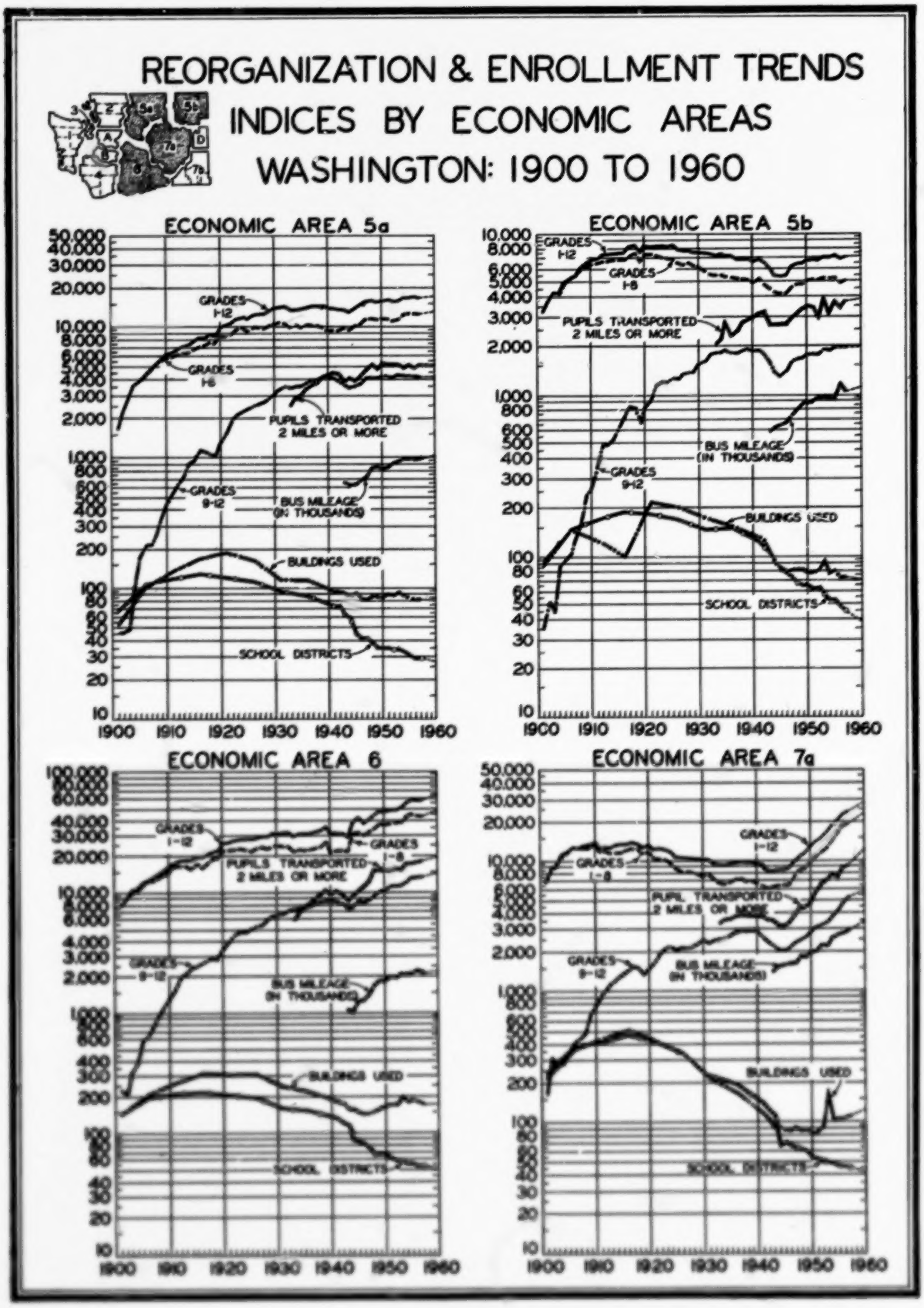

REORGANIZATION & ENROLLMENT TRENDS
INDICES BY ECONOMIC AREAS
WASHINGTON: 1900 TO 1960
ECONOMIC AREA 1
ECONOMIC AREA 2
ECONOMIC AREA 3
ECONOMIC AREA 4
GRADES 1-12
GRADES 1-8
GRADES 9-12
PUPILS TRANSPORTED 2 MILES OR MORE
BUS MILEAGE (IN THOUSANDS)
BUILDINGS USED
SCHOOL DISTRICTS
100,000
80,000
60,000
50,000
40,000
30,000
20,000
10,000
8,000
6,000
4,000
3,000
2,000
1,000
800
600
400
300
200
100
80
60
40
30
20
10
6
4
3
2
1
1900
1910
1920
1930
1940
1950
1960

Figure 5:2



REORGANIZATION & ENROLLMENT TRENDS INDICES BY ECONOMIC AREAS WASHINGTON: 1900 TO 1960

ECONOMIC AREA 5a

ECONOMIC AREA 5b

ECONOMIC AREA 6

ECONOMIC AREA 7a

Figure 5:3

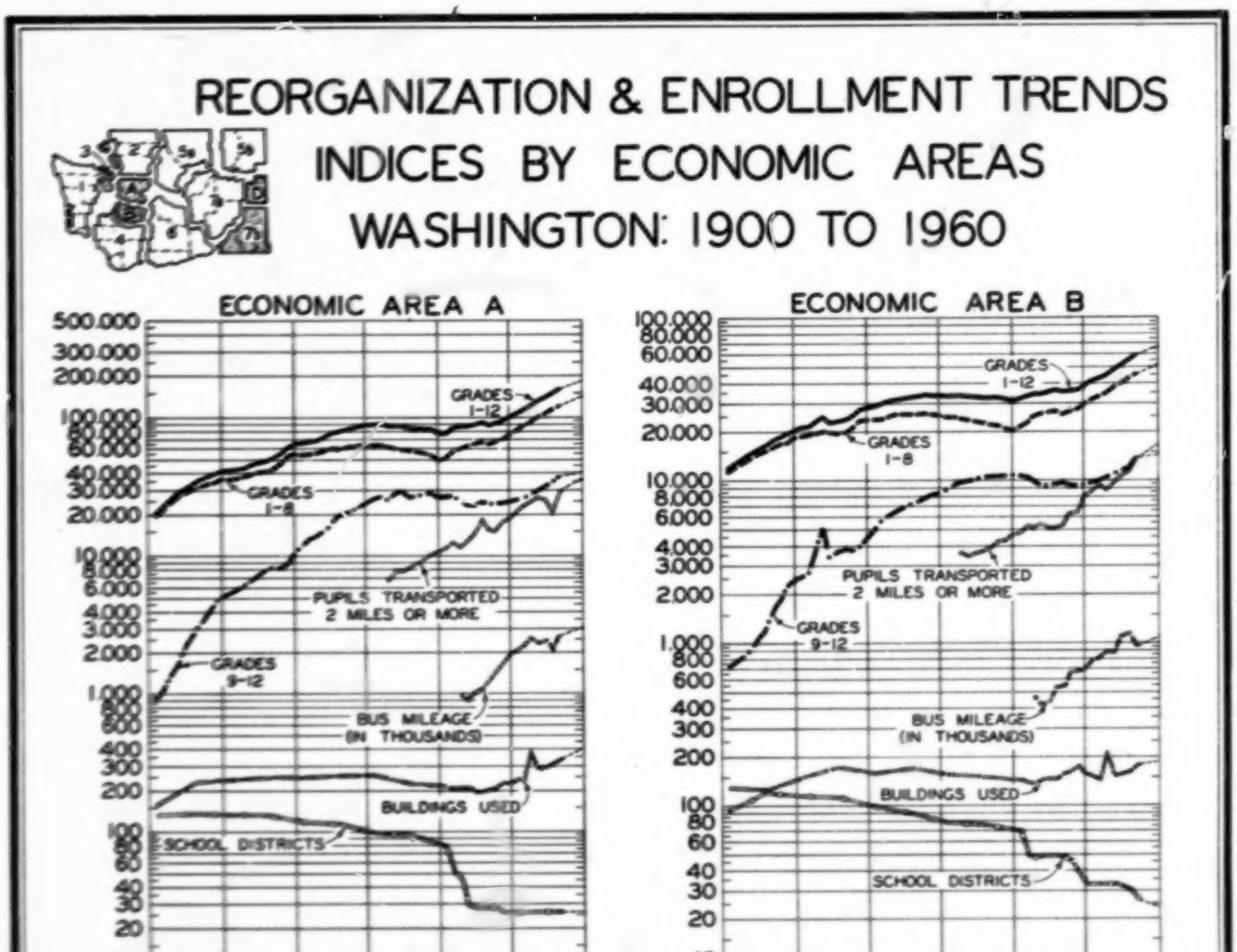

REORGANIZATION & ENROLLMENT TRENDS
INDICES BY ECONOMIC AREAS
WASHINGTON: 1900 TO 1960
ECONOMIC AREA A
ECONOMIC AREA B
ECONOMIC AREA D
ECONOMIC AREA 7b
GRADES 1-12
GRADES 1-8
GRADES 9-12
PUPILS TRANSPORTED 2 MILES OR MORE
BUS MILEAGE (IN THOUSANDS)
BUILDINGS USED
SCHOOL DISTRICTS
500,000
300,000
200,000
100,000
80,000
60,000
50,000
40,000
30,000
20,000
10,000
8,000
6,000
4,000
3,000
2,000
1,000
800
600
400
300
200
100
80
60
40
30
20
10
1900
1910
1920
1930
1940
1950
1960

Figure 5:4

ropolitan and Non-Metropolitan Areas. Before 1930, the Metropolitan Areas were increasing in enrollment faster than the Non-Metropolitan Areas, but the 'depression' served as a retarding factor, since there was a temporary migration to rural areas. This is reflected in the percentage of change that took place from 1930 to 1940 in grades 1-8 and 9-12. Non-Metropolitan Areas declined 11.5 per cent in enrollment in grades 1-8, while Metropolitan Areas decreased by 18.2 per cent. In grades 9-12, enrollment in Non-Metropolitan Areas increased by 17.4 per cent, while Metropolitan Areas increased by only 5.6 per cent between 1930 and 1940.

Between 1900 and 1957, the total number of school districts declined from 449 to 102 (77 per cent) in Metropolitan Areas and from 1,693 to 380 (78 per cent) in Non-Metropolitan Areas. However, between 1900 and 1920, the number of school districts in Metropolitan Areas decreased by seven, while 255 new school districts were added in Non-Metropolitan Areas. Since passage of the School District Reorganization Act in 1941, the rate of decline in school districts has nearly doubled in both areas. Of the total reduction in school districts between 1900 and 1957, Non-Metropolitan Areas declined 52.8 per cent between 1940 and 1957 and Metropolitan Areas decreased 51.3 per cent during the same period.

In King County, the largest Metropolitan Economic Area in the state, the suburbs of Seattle had the largest rate of decline in number of school districts, with little change occurring in the sparsely settled rural area of the county.[4]

Figures 5:2, 5:3 and 5:4 reveal that high school enrollment, particularly in Non-Metropolitan Areas, was affected by both World Wars. Metropolitan Areas A, B and D experienced a decline at the beginning of the war periods, but the influx of military and war production workers tended to offset losses of older pupils to the military. During the depression, enrollment in grades 9-12 throughout the state tended to remain more stable than elementary school enrollment, mostly because of the high level of births after World War I and lack of employment opportunities for youths of high school age.

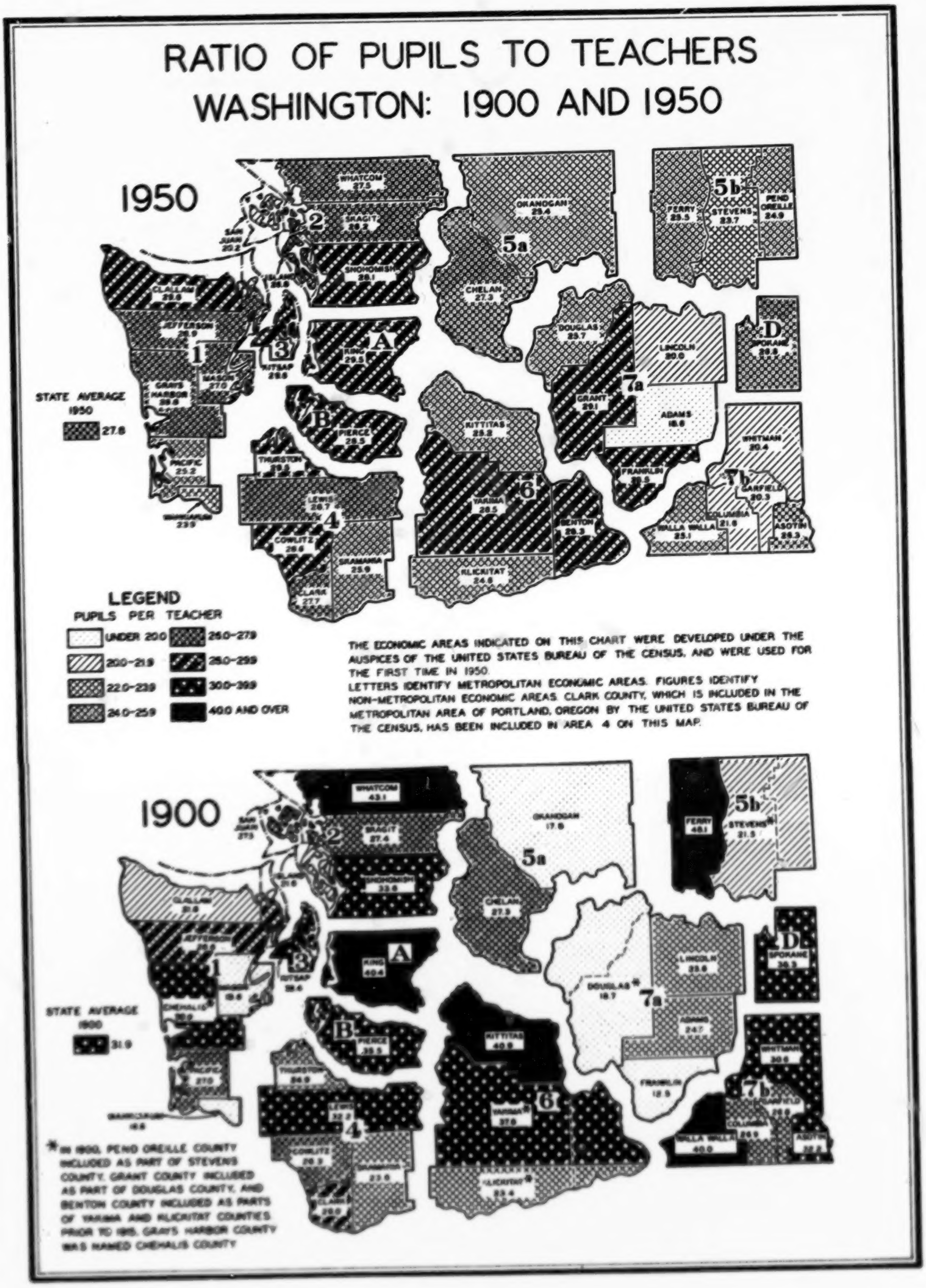
In general, the reduction of school districts has proceeded slowly in the thinly populated rural and mountainous areas of the state. Since 1900, for example, Economic Areas 5a, 5b, and 6 had reductions in number of school districts of 57.4, 51.4 and 64.4 per cent, respectively, compared to 77.5 per cent reported for the state as a whole. After 1940, however, reorganization in these Areas was more rapid, reflecting the effects of the Reorganization Act as well as increased use of transportation facilities.

PUPIL-TEACHER RATIO: 1900 TO 1950

School administrators have long recognized the importance of maintaining an adequate proportion of pupils to teachers. Although optimum pupil-teacher ratios are different on the elementary and secondary levels, nevertheless they are an important factor in planning for future educational needs.

---

[4] George C. Myers, Suburbanization and its Impact upon the Schools, unpublished Master's Thesis, Department of Sociology, University of Washington, 1960, Chapter VI.



RATIO OF PUPILS TO TEACHERS
WASHINGTON: 1900 AND 1950

1950
WHATCOM 27.5
SKAGIT 29.2
SAN JUAN 20.2
ISLAND 26.9
SNOHOMISH 28.1
CLALLAM 29.8
JEFFERSON 25.9
KITSAP 29.8
KING 29.5
MASON 27.0
GRAYS HARBOR 29.8
PIERCE 28.5
THURSTON 29.8
PACIFIC 25.2
WAHKIAKUM 23.9
LEWIS 26.7
COWLITZ 28.6
SKAMANIA 25.9
CLARK 27.7
OKANOGAN 25.4
CHELAN 27.3
KITTITAS 25.2
YAKIMA 28.5
BENTON 28.3
KLICKITAT 24.6
FERRY 25.5
STEVENS 23.7
PEND OREILLE 24.9
DOUGLAS 25.7
GRANT 29.1
LINCOLN 20.0
ADAMS 18.6
FRANKLIN 28.5
SPOKANE 26.8
WHITMAN 20.4
GARFIELD 20.3
COLUMBIA 21.8
WALLA WALLA 25.1
ASOTIN 26.3
1
2
3
4
5a
5b
6
7a
7b
A
B
D
STATE AVERAGE 1950
27.8
1900
WHATCOM 43.1
SAN JUAN 27.0
SKAGIT 27.4
SNOHOMISH 33.8
ISLAND 21.6
CLALLAM 21.6
JEFFERSON 29.9
KITSAP 19.4
KING 40.4
19.8
CHEHALIS* 30.0
PIERCE 33.5
THURSTON 24.9
PACIFIC 27.0
WAHKIAKUM 18.6
LEWIS 32.2
COWLITZ 26.3
SKAMANIA 23.8
CLARK 29.0
OKANOGAN 17.8
CHELAN 27.3
KITTITAS 40.9
YAKIMA* 37.8
KLICKITAT* 23.4
FERRY 48.1
STEVENS* 21.5
DOUGLAS* 18.7
LINCOLN 23.8
ADAMS 24.7
FRANKLIN 12.5
SPOKANE 30.3
WHITMAN 30.8
GARFIELD 28.8
COLUMBIA 28.9
WALLA WALLA 40.0
ASOTIN 32.2
STATE AVERAGE 1900
31.9

LEGEND
PUPILS PER TEACHER

☐ UNDER 20.0	▨ 26.0–27.9
▨ 20.0–21.9	▨ 28.0–29.9
▨ 22.0–23.9	▨ 30.0–39.9
▨ 24.0–25.9	■ 40.0 AND OVER

THE ECONOMIC AREAS INDICATED ON THIS CHART WERE DEVELOPED UNDER THE AUSPICES OF THE UNITED STATES BUREAU OF THE CENSUS, AND WERE USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS. FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS. CLARK COUNTY, WHICH IS INCLUDED IN THE METROPOLITAN AREA OF PORTLAND, OREGON BY THE UNITED STATES BUREAU OF THE CENSUS, HAS BEEN INCLUDED IN AREA 4 ON THIS MAP.

*IN 1900, PEND OREILLE COUNTY INCLUDED AS PART OF STEVENS COUNTY. GRANT COUNTY INCLUDED AS PART OF DOUGLAS COUNTY, AND BENTON COUNTY INCLUDED AS PARTS OF YAKIMA AND KLICKITAT COUNTIES PRIOR TO 1915. GRAYS HARBOR COUNTY WAS NAMED CHEHALIS COUNTY

Figure 5:5

The pupil-teacher ratio is a composite index which is responsive to a number of factors. Some of the more important ones are: (1) the number of available, qualified teachers, (2) teacher salary scales and other financial inducements, (3) "double-shifting" in the schools, (4) size of school-age population and (5) employment opportunities in other fields.

Figure 5:5 shows changes which have taken place from 1900 to 1950 in pupil-teacher ratios in the state as a whole and in each county. For the entire state in 1900, the mean number of pupils per teacher was 31.9, compared with 27.8 in 1950. Although the mean number of pupils per teacher showed little change for the state during this period, considerable difference occurred in the pupil-teacher ratio among the counties.

Twenty-four counties have had reductions in the ratio of pupils to teachers since 1900. In three of these counties, Adams, San Juan and Whitman, the number of pupils decreased since 1900, while the number of teachers increased, thus accounting for the decline in their pupil-teacher ratio between 1900 and 1950. In Columbia, Garfield and Lincoln Counties, reduction in the pupil-teacher ratio between 1900 and 1950 is attributable to a sharp decline in the number of pupils, while the number of teachers declined at a slower rate.

Seven counties had reductions of 10 per cent or more in pupil-teacher ratio since 1900 — Ferry, King (Seattle), Kittitas, Spokane (Spokane), Walla Walla (Walla Walla), Whatcom (Bellingham) and Yakima (Yakima). Five of these counties contain cities with populations in excess of 25,000 and two (King and Spokane) contain cities of more than 100,000 persons.

Figure 5:5 reveals that, although there has been considerable change among the counties in pupil-teacher ratios since 1900, the statewide trend for all counties has been towards establishing an optimum ratio of not less than 20 or more than 30 teachers to 1,000 pupils. The only exception is Adams County, having in 1950 the lowest pupil-teacher ratio — 18.6.

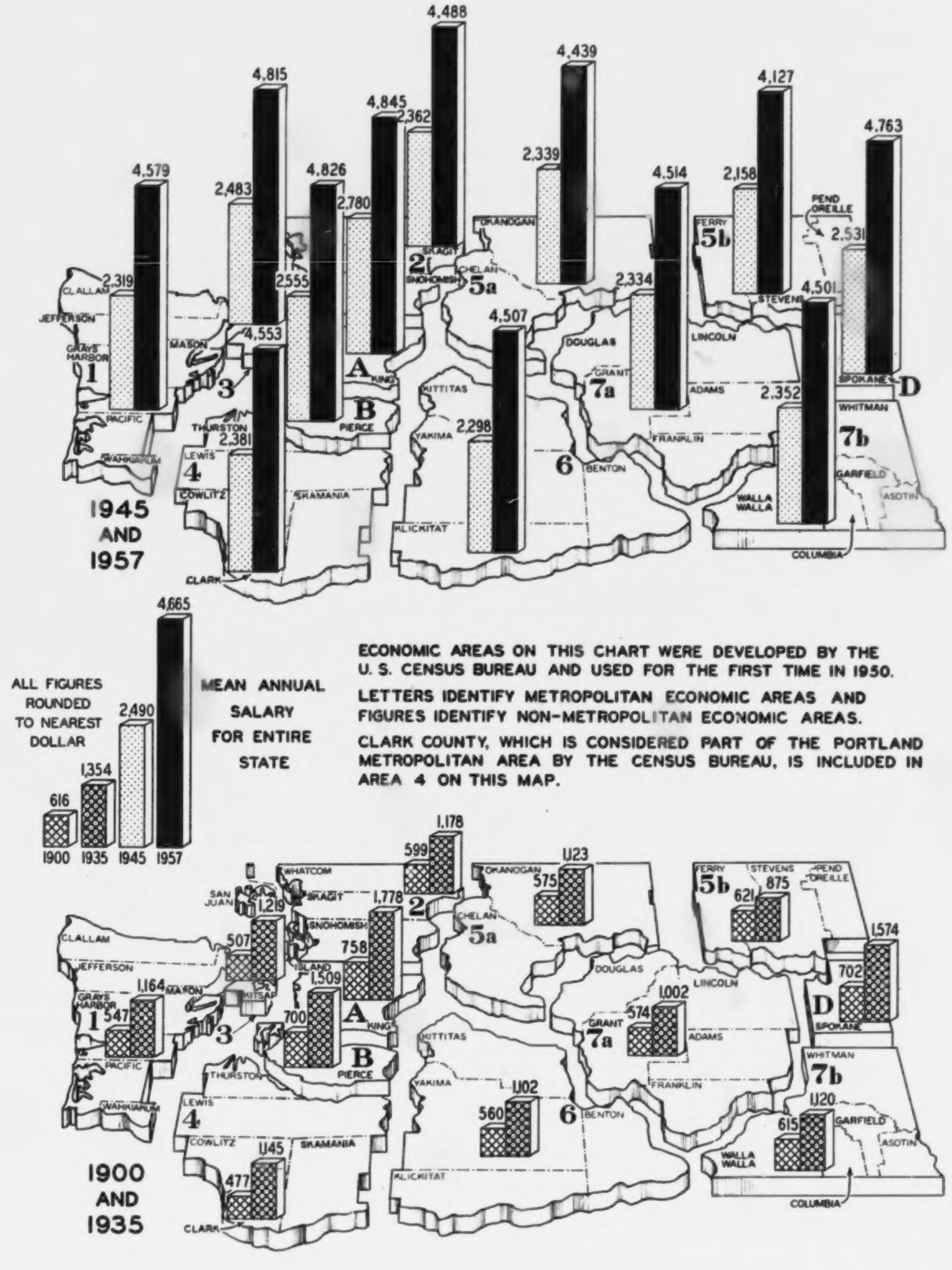
MEAN ANNUAL SALARY OF TEACHERS

Figure 5:6 depicts the mean annual salary of teachers in 1900, 1935, 1945 and 1957, for the state as a whole and for each of the 12 Economic Areas. In general, there has been a steady increase in the mean annual salary of teachers in the state of Washington — from $616 in 1900 to $4,665 in 1957.

Examination of Figure 5:6 reveals that Metropolitan Areas A (King), B (Pierce) and D (Spokane) consistently have paid the highest average salary to teachers. The only exception occurred in 1957, when Economic Area 3 (Kitsap) ranked third, replacing Economic Area D (Spokane), which dropped to fourth.

In 1935, the mean annual salary for the state was $1,354. Only two counties, King and Spokane, which included 33 per cent of the teachers in the state, had mean annual salaries larger than the state average. In 1945, the mean annual salary for the state was $2,490, and four counties — Adams, King, Pierce and Spokane — with 44 per cent of the state's teachers, had mean salaries larger than the state average. By 1957, ten counties — Adams, Clallam, Cowlitz, Franklin, Garfield, King, Kitsap, Pierce, Skamania and Spokane — with 55 per

MEAN ANNUAL SALARY OF TEACHERS ECONOMIC AREAS: 1900, 1935, 1945 AND 1957



ECONOMIC AREAS ON THIS CHART WERE DEVELOPED BY THE U. S. CENSUS BUREAU AND USED FOR THE FIRST TIME IN 1950.

LETTERS IDENTIFY METROPOLITAN ECONOMIC AREAS AND FIGURES IDENTIFY NON-METROPOLITAN ECONOMIC AREAS.

CLARK COUNTY, WHICH IS CONSIDERED PART OF THE PORTLAND METROPOLITAN AREA BY THE CENSUS BUREAU, IS INCLUDED IN AREA 4 ON THIS MAP.

Figure 5:6

cent of the state's teachers, had mean annual salaries larger than that of the state.

It is evident from these data that more teachers are receiving larger annual salaries, and that salary differentials among counties in the state are diminishing.

SUMMARY

In this chapter, an examination was made of significant administrative adjustments which the educational system has made in response to basic demographic and socio-economic changes. Some of the more important administrative adjustments of schools, expressed in terms of measurable indices, may be summarized as follows:

> The number of school districts in the state has been reduced by 82 per cent since the peak year, 1910.
>
> The total number of bus miles driven annually has steadily increased since 1942, particularly in the sparsely settled areas of the state.
>
> The total number of pupils transported two or more miles to school has increased since 1932 — from 56,024 in 1932 to 160,408 in 1957.
>
> The number of school buildings used has generally declined since 1900, mainly as a consequence of consolidation of districts and reduction in the number of one-room schools.
>
> The pupil-teacher ratio has changed very little for the state as a whole since 1900, but the extreme differences which existed among counties in 1900 have virtually disappeared.
>
> The mean salary of teachers has steadily increased since 1900 -- from $616 in 1900 to $4,665 in 1957. The pronounced differentials in salary scales that prevailed in past years among counties in the state have greatly diminished.

CHAPTER 6

IMPACT OF DEMOGRAPHIC AND ECOLOGICAL CHANGE ON PUBLIC SCHOOLS IN THE SEATTLE METROPOLITAN AREA*

by

George C. Myers

This chapter considers some of the more significant demographic and ecological trends and processes in the Seattle Metropolitan Area, especially as they relate to educational institutions. The Seattle Metropolitan Area, coterminous with King County, represents the largest concentration of population in the state, comprising close to one-third of the state's population. The total public school enrollment in King County for grades 1 through 12 was 157,692 in 1957, compared to 551,692 in the entire state.

POPULATION GROWTH AND REDISTRIBUTION

Population Growth. During the thirty-seven year period, 1920 to 1957, the population of King County increased by approximately 460,000 persons. This represents an annual rate of growth of 2.1 per cent, compared with an annual rate of 1.9 per cent for the state.

The rate of population growth for King County has fluctuated from one decade to another. For example, the high rate of growth in the 1920's was followed by a sharp retardation during the depression period of the 1930's and rapid growth during the 1940's. Since 1950, a steady increase is evident. These uneven rates of growth have made it imperative that educational institutions provide a flexible and adaptable program for handling any contingencies which might arise as a consequence of population change. (Table 6:I)

Population growth may be attributed to two sources — natural increase, the net balance between births and deaths, and net migration, the balance between in and out population movement. During the 1940-50 decade, an extraordinarily large population increment resulted from net migration into King County, although natural increase was also a factor of considerable importance. The heavy streams of migration to King County during the earlier years of this period were composed largely of military personnel and war production workers, many of whom took up permanent residence in the region after the close of the War. Since 1950, however, natural increase is estimated to have contributed a greater share to the population growth than migration, signifying both continuation of a high level of fertility, and decline in net inmigration, first manifested immediately after World War II.

---

*This chapter is based on a master's thesis: George C. Myers, Suburbanization and Its Impact Upon the Schools, Department of Sociology, University of Washington, 1960.

TABLE 6:I

POPULATION AND ANNUAL RATES OF GROWTH KING COUNTY AND COMPONENT AREAS: 1920 TO 1957*

Year or Period	Area			
	King County	Seattle	Suburbs	Balance of County
Population				
1957.	859,000	572,000	205,700	81,300
1950.	732,992	524,664	133,769	74,559
1940.	504,980	398,658	56,094	50,228
1930.	463,517	383,898	37,009	42,610
1920.	389,273	324,155	26,670	38,448
Annual Rate of Change				
1950-57. . . .	2.3	1.2	6.2	1.2
1940-50. . . .	3.7	3.9	8.7	4.0
1930-40. . . .	.9	.3	4.2	1.7
1920-30. . . .	1.7	1.7	3.2	1.0
1920-57. . . .	2.1	1.5	4.4	2.0

*Data for 1920-50 adjusted to 1957 boundaries of areas.

Within the county there have been significant differentials in rates of population growth. Since 1920, numerical population gain in the area comprising present corporate limits of Seattle has been greater than in the suburbs and balance of the county.[1] During the past seven years, however, annual population increments in the suburbs have averaged about 10,000 persons, compared with around 7,000 in Seattle — despite Seattle's having a population about two and one-half times that of the suburbs. Since 1920, the suburbs have surpassed the other component areas of the county in annual rate of population growth.

Population Redistribution — A Process of Decentralization. Differential rates of growth in the major component areas of King County indicate a definite trend toward decentralization — a considerably higher rate of population growth in the peripheral area of the urban complex than that of the inner area. A realistic and systematic technique for studying population redistribution consists of an examination of population change by concentric zones. To control for zonal variations in land area, population densities were determined for thirteen mile-wide zones radiating from the central business district of Seattle.

By analyzing the decline of population density as an exponential function of increasing distance from the central business district, it is possible to depict graphically the changes in population distribution through the entire period from 1920 to 1957.

Figure 6:1 indicates these distributions by zones for certain years during this period. Four conclusions may be derived from this analysis: (1) There is support for the contention

that population density declines as an exponential function of distance from the city core. This is reflected by the closeness of fit between the expected values along the regression line and the actual values.[2] (2) Parameter *A*, which represents the hypothetical density found at the center of the city, has declined steadily since 1930, when it reached its peak. Thus, there has been a decrease in the population density of the inner zones. (3) The slope of the equation, *b*, has decreased in value with each succeeding period, indicating a gradually increasing population density in the peripheral, suburban zones. (4) On the basis of these results, it seems appropriate to speak of population redistribution as net decentralization rather than as mere accretion at the periphery of the area. Fragmentary evidence on gross mobility patterns indicates that there is also a net decentralizing process with respect to actual movement of population into the suburbs from the central city.

---

[1] For the present study, "suburbs" include the following school districts: Shoreline, Bothell, Lake Washington, Bellevue, Mercer Island, Renton, South Central and Highline.

The authors believe that the process of decentralization, characteristic of the area during this period, properly should be conceived of as a stage in the life cycle of the urban community. A possible increase in population density in the inner areas of the city resulting from urban renewal, multiple dwelling construction and continued immigration of Negroes, could affect this process of decentralization. The population expansion toward peripheral zones probably will continue, with only slight depletion of population in the inner zones.

Population Composition. Compared to Seattle and the balance of the county, the suburban population consists of a larger proportion of children and adults in the family-forming years. This reflects selective migration of persons in these age categories into suburban areas, and high fertility rates characteristic of suburban populations.

Contrary to general assumptions, the suburbs do not have a higher proportion of employed persons in the white-collar occupational groups than the city of Seattle. However, it should be pointed out that different types of suburban developments, such as industrial satellites and residential "gold coasts," are included in this heterogeneous grouping. A much larger percentage of the city's population, on the other hand, is comprised of non-white persons — a fact which is not without implications for educational institutions.

CONSEQUENCES OF POPULATION GROWTH AND REDISTRIBUTION FOR EDUCATIONAL INSTITUTIONS

Trends in Average Daily Attendance. During the period studied, 1920 to 1957, average daily attendance for grades 1-12 in King County schools increased by 167.3 per cent, while population increased by only 120.7 per cent. Numerically, this accounted for a gain

---

[2] Figure 6:1 shows the plotting of the exponential function $y = Ae^{-bx}$, which contains the parameters A and b. When graphed, the horizontal coordinate designates distance in miles from the center of the city to the midpoints of the several zones, and the vertical axis represents the natural logarithm of population density, measured in tens per square mile. For a further discussion of this technique, see: Colin Clark, "Urban Population Densities," *Journal of the Royal Statistical Society*, Series A, Vol. CVIV, Pt. IV (1951), pp. 490-496, and Otis Dudley Duncan, "Population Distribution and Community Structure," in *Cold Spring Harbor Symposia on Quantitative Biology, Population Studies: Animal Ecology and Demography*, Vol. XXII (Cold Spring Harbor, L.I., New York, 1957), pp. 357-371.

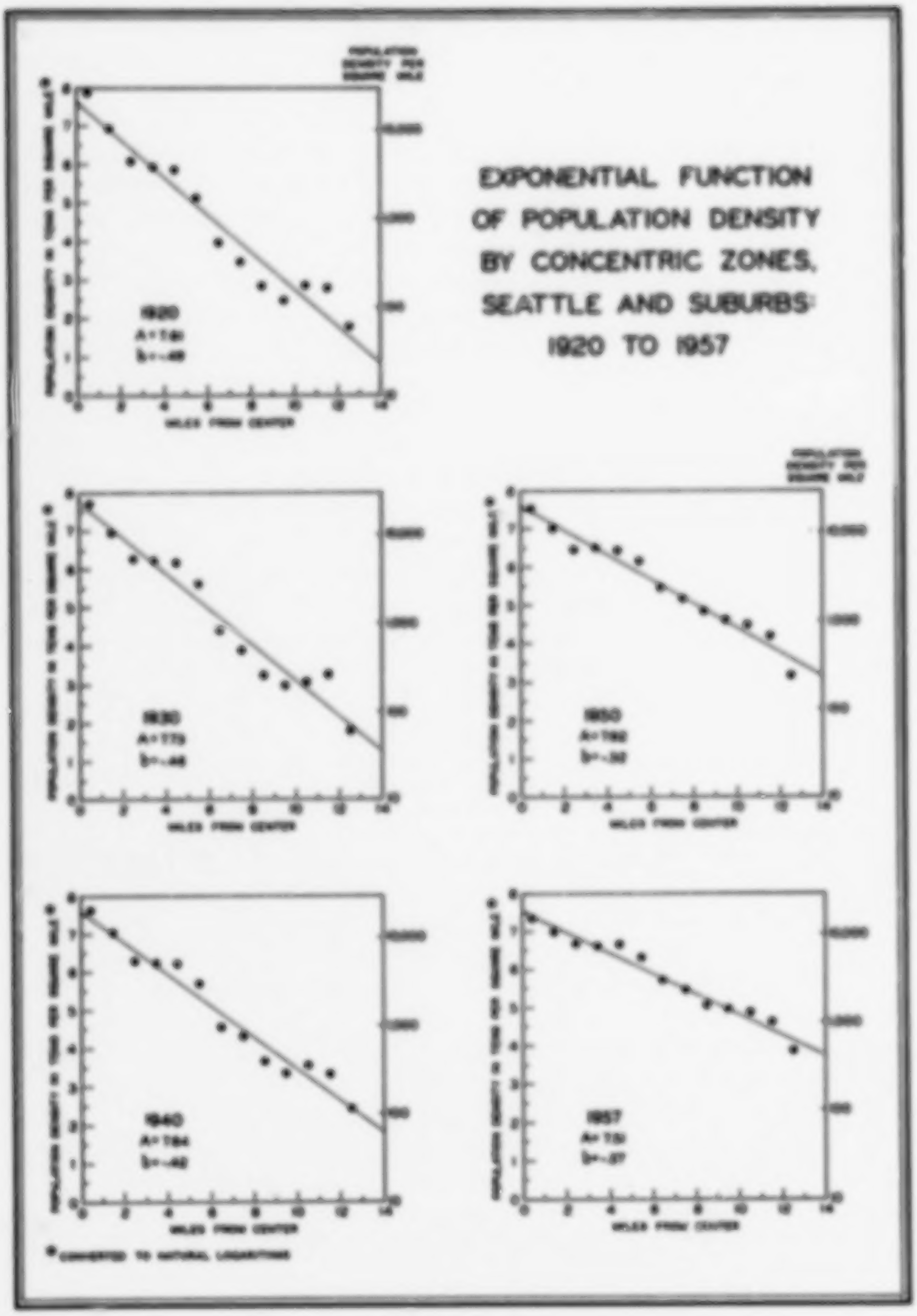

EXPONENTIAL FUNCTION
OF POPULATION DENSITY
BY CONCENTRIC ZONES,
SEATTLE AND SUBURBS:
1920 TO 1957
POPULATION DENSITY PER SQUARE MILE
10,000
1,000
100
MILES FROM CENTER
0
2
4
6
8
10
12
14
1920
A=7.81
b=-.49
1930
A=7.73
b=-.46
1940
A=7.64
b=-.42
1950
A=7.62
b=-.30
1957
A=7.51
b=-.27
*CONVERTED TO NATURAL LOGARITHMS

Figure 6:1

of approximately 90,000 pupils attending public schools.[3]

Since 1950, school enrollment has increased by 63.3 per cent, while population has shown a gain of only 17.1 per cent. This reflects one aspect of the age structure of the population during the period — the differential increase in the number of children of school age.

Average daily attendance increased within each of the component areas between 1920 and 1957. Suburban school districts increased nearly elevenfold, while the city's average daily attendance almost doubled. Suburban average daily attendance increased in each period — the only area showing such consistent gains. (Figure 6:2)

In general, the growth is more pronounced in grades 9-12 than in elementary grades. This is a result of changes in cultural values emphasizing advantages of a high school education, as well as gains resulting from alterations in age distribution of the populations.

TABLE 6:II
AVERAGE DAILY ATTENDANCE
PERCENTAGE OF TOTAL POPULATION
KING COUNTY AND COMPONENT AREAS: 1920 TO 1957

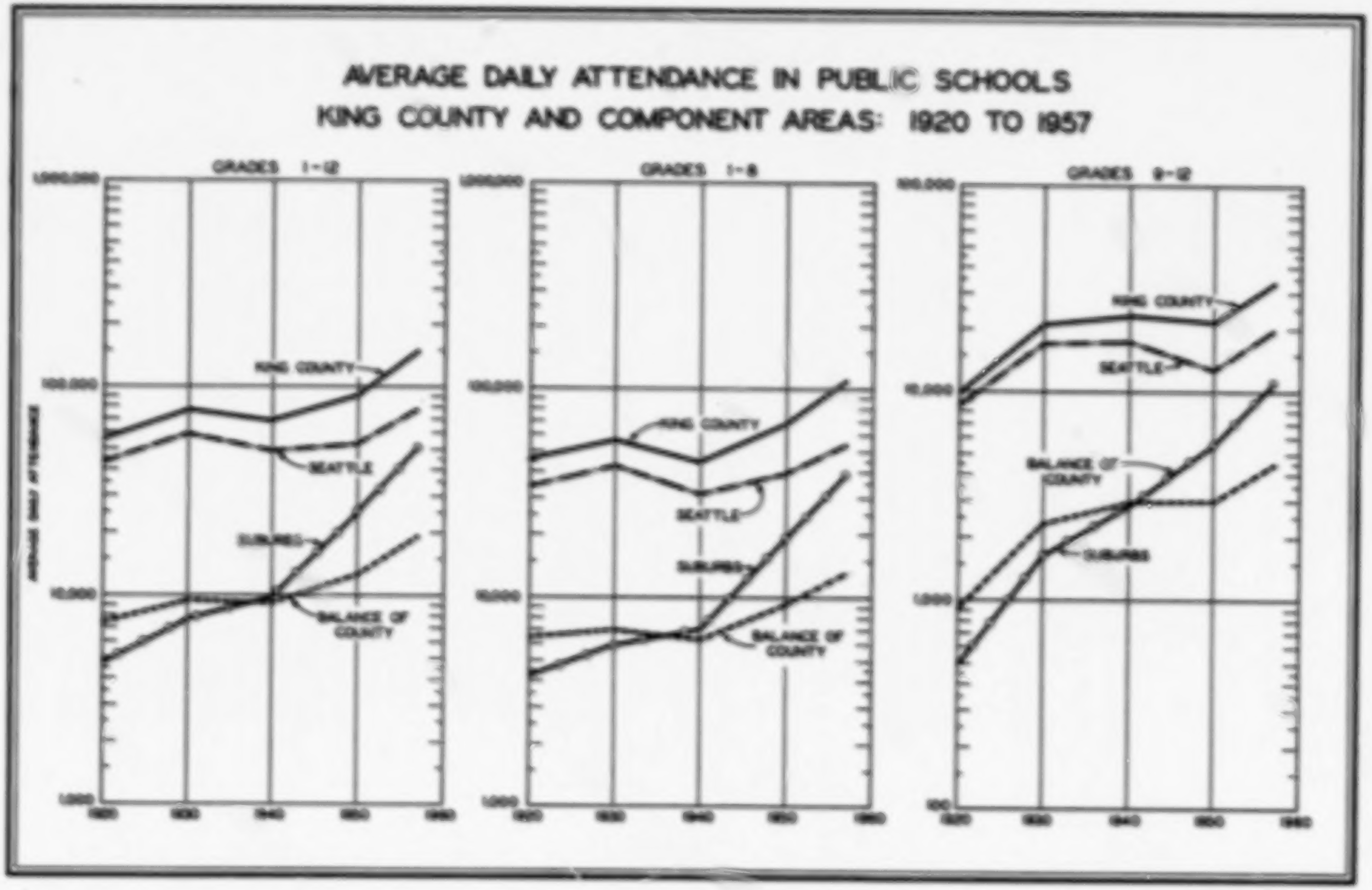
Year	Area			
	King County	Seattle	Suburbs	Balance of County
1957 . . .	16.9	13.4	24.4	22.4
1950 . . .	12.1	10.0	18.2	18.2
1940 . . .	13.3	12.1	17.6	18.1
1930 . . .	16.3	15.3	20.6	21.5
1920 . . .	13.9	13.0	17.8	18.9

Of particular interest is the material presented in Table 6:II, for it enables one to view enrollment in relationship with total population. Since 1940, the proportion of children attending school in the general population has shown a pronounced increase. This is especially evident in the suburbs where approximately one out of every four persons attends public school. In appraising the long-term trend, however, one must not overlook the fact that relatively high ratios of enrollment to the total population have been experienced previously. This tempers the fairly widespread opinion that the present school crisis is unique, and gives a more reasonable impression that crises due to dramatic increases in enrollment have been faced before, and, moreover, might occur again in the future.

School Structures. Changes in number of pupils attending school directly affect demand for educational facilities, particularly school structures. Relative geographical fixity of the school, along with the dominant values associated with the school as a community institution, contribute to the constant pressures arising throughout the school system to dif-

---

[3] Average daily attendance is the only index of enrollment by school district which has been in continuous use in the state from 1920 to 1957.



AVERAGE DAILY ATTENDANCE IN PUBLIC SCHOOLS
KING COUNTY AND COMPONENT AREAS: 1920 TO 1957

GRADES 1-12

GRADES 1-8

GRADES 9-12

Figure 6.2

TABLE 6:III

SCHOOLS IN OPERATION

KING COUNTY AND COMPONENT AREAS: 1920 TO 1957*

Year	Area			
	King County	Seattle	Suburbs	Balance of County
1957. . . .	272	107	103	62
1950. . . .	195	81	59	55
1940. . . .	201	80	51	70
1930. . . .	253	108	55	90
1920. . . .	245	93	55	97

*These figures include only regular schools (both elementary and secondary), and exclude special places of instruction, remedial schools and any administrative structures.

ferential changes in the distribution of school-age population. Furthermore, the emergence of the 6-3-3 school grade system has produced a need for even more facilities. (Table 6:III)

Nevertheless, the overall number of schools has not increased proportionately with enrollment, reflecting the elimination of one-room schools and other obsolescent facilities, the use of portables and additions to existing structures. The number of operating schools

TABLE 6:IV

NUMERICAL AND PERCENTAGE CHANGE IN TEACHING POSITIONS

KING COUNTY AND COMPONENT AREAS: 1920 TO 1957

Year or Period	Area			
	King County	Seattle	Suburbs	Balance of County
Number				
1957 . . .	5,263	2,709	1,895	659
1950 . . .	3,265	1,794	996	475
1940 . . .	2,516	1,785	369	362
1930 . . .	2,599	1,978	279	342
1920 . . .	1,962	1,492	200	270
Per Cent Change				
1950-57. .	61.2	51.0	90.3	38.7
1940-50. .	29.8	.5	169.9	31.2
1930-40. .	-3.2	-9.8	32.3	5.8
1920-30. .	32.5	32.6	39.5	26.7
1920-57. .	168.2	81.6	847.5	144.1

in the suburbs has nearly doubled, while only a few have been added within the city, and a substantial decrease has occurred in the balance of the county.

Teaching Positions. In general, there has been little variation among the component areas in the ratio of pupils to teachers. The increase in the number of teaching positions, therefore, has followed fairly closely the expansion of enrollment.

Table 6:IV shows substantial increases in the number of teaching positions during the period studied as well as differential gains in suburban school districts. Since 1950, the number of positions has nearly doubled in the suburbs, while the increase in the other component areas has been considerably smaller.

Educational Programs. Since 1920, numerous and extensive changes have been made in the curricula of the schools, the range of courses offered, special programs for the physically and mentally handicapped and implementation of counseling services. Initiation of these programs has required substantial increases in staff and operational funds.

There is little evidence that any significant differences exist in the programs offered by schools located in the various component areas. The suburban schools do not differ in this respect, although within certain suburban school districts a larger proportion of students are preparing for college careers than in school systems in the other areas.

Financial Responsibilities. The ultimate effect of any demand for additional instructional facilities, teachers and expanded educational programs is increased finances to provide for these needs.

It has been pointed out previously in this chapter that suburban school districts have experienced far greater pressures from demands of this kind than school districts in the other component areas. Financially, pressures in the suburbs arise from a proportionately smaller number of adults to finance the costs of education, as reflected by the large ratios of students to total population, and a tax base producing substantially lower assessed valuations per pupil than is true of other areas.

Therefore, the suburban school districts must support an expanding educational operation with a smaller financial base than other areas where demands are less pressing. Yet, the support given to special levies and bond elections by the suburban electorates reflects strong interest and responsibility for local school organizations.

School District Reorganization. Extensive reorganization in the administrative machinery of educational institutions has taken place. One of the major factors contributing to this reorganization has been suburbanization. As a consequence of the proliferation of small, poorly equipped districts located in the suburban areas, it became impossible to cope with the influx of population and the attendant growth of school enrollment. Extensive reorganization, under the provisions of the School District Reorganization Act of 1941, is reflected in Table 6:V by the sharp decrease in suburban districts between 1940 and 1950.

Since 1920, there has been a decline in the number of school districts — from 116 in 1920 to only 26 at the present time. In addition to the number of districts listed for 1920–40, four union high school districts also were in operation during that period.

As a consequence of reorganization it is now possible for each area in the county to

TABLE 6:V
SCHOOL DISTRICTS
KING COUNTY AND COMPONENT AREAS: 1920 TO 1957*

Year	Area			
	King County	Seattle	Suburbs	Balance of County
1957. . .	26	1	8	17
1950. . .	26	1	8	18
1940. . .	75	5	29	41
1930. . .	92	5	30	57
1920. . .	116	5	33	78

*Excludes union high school districts and joint districts.

be served by a school district sufficiently large to: (a) maintain a high school, (b) consider the introduction of a 6-3-3 school grade system, (c) hire an adequate teaching staff and professional administrative personnel, (d) provide a financial base sufficient to raise needed funds and (e) prevent disruptive stresses resulting from large shifts of population.

SUMMARY

This chapter has examined the effects of population growth and redistribution on educational institutions in the Seattle Metropolitan Area. The dramatic growth of population, and uneven distribution of these gains was discussed as a function of decentralization. Of great significance for the schools has been differential gains in the school-age population.

The increase in number of pupils has made it imperative for educational institutions to provide additional instructional facilities and sufficient teaching personnel to staff them. The schools also have greatly expanded their educational programs.

Financial responsibilities have increased along with the expansion of school programs and facilities. One of the means of adjusting to these pressures has been through reorganization of school districts, which has been very extensive in King County.

Finally, the effects of these pressures have not been distributed evenly among the school districts in the county; rather, the suburban areas have felt the major impact of population growth and redistribution. Certain problems are peculiar to the suburbs, while special efforts have been made in suburban areas to create and maintain educational programs of high quality.

CHAPTER 7

RESIDENTIAL MOBILITY AND SCHOOL ADJUSTMENT AMONG JUNIOR AND SENIOR HIGH SCHOOL PUPILS*

by

Warren E. Kalbach and John R. Walker

School systems in areas of expanding population are subjected to numerous pressures tending to reduce the efficiency of both teaching and administration. Probably foremost is the stress on the school district's ability to provide adequate facilities and staff by the rapidly increasing numbers of pupils resulting from natural increase and migration. In addition to problems associated with growth *per se*, further difficulties are encountered as the schools attempt to maintain continuity of instruction and activities while assimilating large numbers of inmigrants of diverse ethnic and socio-economic backgrounds.

Adequate planning by school administrators requires more precise knowledge of the nature and extent of residential mobility of the school population and its impact on the pupil. This chapter is specifically concerned with analysis of the degree and type of mobility experienced by a school population in a metropolitan setting and the probable significance of residential mobility relative to several indicators of school adjustment.

METHOD AND SAMPLE

This is an *ex post facto* longitudinal-type study utilizing detailed information on the total mobility experiences of pupils since birth. In addition, information on family characteristics, students' participation in school activities and satisfaction with school was collected by questionnaires administered to ten per cent samples of the Seattle senior and junior high populations, stratified by school and grade.

The samples, consisting of 1,607 senior high school and 2,091 junior high school pupils, were predominantly white, Protestant and from "unbroken" homes. Specifically, 94 and 93 per cent of the senior and junior high school samples, respectively, were white; 79 and 78 per cent were Protestants; and 75 and 77 per cent were from unbroken homes. While greater heterogeneity was observed with respect to the fathers' reported occupations, the similarity in distributions for the two samples persisted. In this case, 52 per cent of the

---

*This chapter is based on the following theses: Warren E. Kalbach, *Residential Mobility and Its Implications for Family and School Adjustment in an Urban Community*, Ph.D. thesis, Department of Sociology, University of Washington, 1960; John R. Walker, *The Impact of Residential Mobility on Junior High School Pupils*, M. A. thesis, Department of Sociology, University of Washington, 1960.

fathers of senior high school pupils were reported as having blue-collar occupations, compared to 54 per cent for the junior high school students.[1]

RESIDENTIAL MOBILITY

Two dimensions of mobility are defined. The first, degree of mobility, is defined and measured in terms of total number of permanent residences. The second dimension, type of mobility, is defined in terms of relative distances involved in the total pattern of residential movement and is to a certain extent comparable to the Census Bureau's categories, which differentiate between nonmovers, local movers, intrastate and interstate migrants.[2] Specifically, type of mobility is subclassified and defined as follows:

(1) Nonmovers. Respondents who have never moved since birth.

(2) Intracity Movers. Respondents who have moved one or more times within the city, but have never lived outside the city.

(3) Intrastate Migrants. Respondents who have moved one or more times within the state, but have never lived outside the state.

(4) Interstate Migrants. Respondents whose mobility experience includes one or more residences outside the state.

Prevalence of Mobility. An indication of relative residential stability or instability of the junior and senior high school populations is obtained by an examination of the proportions of pupils who have never moved since birth. In May, 1958, only 9.8 per cent of the senior high school population, and 11.6 per cent of the junior high school population had never moved, while 27.4 and 34.5 per cent of the senior and junior high school samples, respectively, had not moved since entering school. The lower proportion of nonmovers in the senior high school population may be due to the longer period of time that the individuals as a group have been exposed to the probability of moving. Comparison between median number of moves since birth and since entering first grade for the senior high school sample, 1.70 and 1.30 moves per decade, respectively, suggests that pupils have experienced increasing residential stability as their families have progressed further along in their life cycles.

Type of Mobility. Not only did a larger proportion of the junior high school population never move, but 71 per cent of the junior, compared to 67 per cent of the senior, high school population was born in the state of Washington. Place of birth data give a picture of net shift in residence of the sample population over a considerable period of time. Such data tend, however, to underestimate the extent of both inter- and intrastate migration and do not reflect the extent of intracity movement which may have occurred since birth.

Therefore, by utilizing place of birth data in addition to information on the number of houses lived in since birth, and names and locations of schools attended, a more accurate estimation of degree and type of mobility experience is obtained. Using the mobility types previously defined, very similar distributions were obtained for both senior and junior high school populations. For the senior high school pupils, 50 per cent had experienced local movement only, 17 per cent had experienced intrastate mobility, and 33 per cent had some interstate experience. For the junior high school pupils, the distribution was 53, 14 and 33 per cent, respectively. Again, differences in types of mobility experience may be a reflection of differences in ages of the junior and senior high school groups.

---

[1] Based on the United States Census Bureau's 1950 classification of occupations, the white-collar group of occupations consisted of professional, semi-professional, technical and kindred workers, government officials, proprietors and managers, and clerical and sales workers. The blue-collar group consisted of all others not included above, e.g., craftsmen, foremen, operatives, service workers, laborers, etc.

[2] The category "intracity mover" as used in this study excludes certain intracounty movers which the United States Census Bureau includes in its class of "movers."

Type of Mobility and Frequency of Movement. The literature on residential mobility has implied, rather consistently, that intrastate and interstate migration have greater significance for personal and social disorganization than does local intracity movement. Such conclusions appear to be based on the implication that physical separation associated with migration tends to weaken established social relationships. While the analysis of mobility of the school population in Seattle does not detract from the hypothesized significance of migration as opposed to intracity movement, it does suggest that the importance of migration may be attributable to the greater frequency of movement (degree of mobility) which the analysis indicates is characteristic of the migrant, rather than to the distance of physical movement (type of mobility) per se. The data in Table 7:I reveal considerable relationship between type and degree of mobility for the senior high school population who had experienced some mobility since birth. Analysis of the junior high school data reveals a similar relationship, with a contingency coefficient of +.39 compared to +.37 for the senior high school group.[3]

TABLE 7:I

MOBILITY TYPE BY DEGREE OF MOBILITY

STUDENTS ATTENDING SEATTLE SENIOR HIGH SCHOOLS: MAY, 1958

Degree of Mobility (Median number of moves per decade)	Type of Mobility			Total
	Intracity	Intrastate	Interstate	
Low (1.49 or less). . . .	45.6%	20.2%	16.9%	32.8%
Medium (1.50 to 2.99). . . .	35.5	29.8	29.3	32.5
High (3.0 or more). . . .	16.9	50.0	53.8	34.7
Totals: %	100.0	100.0	100.0	100.0
N.	628	208	420	1,256

Further analysis of the data for the senior high school sample indicates that while the median number of moves per decade for the total sample was 1.70, the degree of mobility was approximately twice as much for the intra- and interstate migrants as for the intracity movers, the median number of moves per decade being 3.00, 3.25 and 1.58, respectively.

The over-all mobility of the senior high school population was found to be not particularly high, in comparison with estimates of mobility rates for the entire population reported by the United States Bureau of the Census. An annual population mobility of 20 per cent provides a very conservative estimate of 2 moves per decade for the general population, considering that some move more than once during a year. These results are consistent with previous analyses of census data, which have indicated that young unmarried adults and young married couples with small children experience the highest rates of mobility.

---

[3] The maximum value of the coefficient of mean square contingency (C) for a 3 x 3 table is +.82.

RESIDENTIAL MOBILITY AND FAMILY CHARACTERISTICS

Socio-economic Status. Using the father's reported occupation as an index of the family's relative social status position, and combining occupational categories into white-collar and blue-collar groups, produced a negative relationship between socio-economic status and degree of mobility. Further analysis of the relationship within mobility types, utilizing four status groups, resulted in considerable variation from the simple negative relationship observed when the status categories are merely dichotomized.[4] (Table 7:II) Without discounting the significance for mobility types of the relatively high levels of mobility exhibited by the two blue-collar groups, the SES II group of clerical and sales workers has the highest median index of mobility for the intracity group of movers, and the SES I group of professionals, technicians, etc., shows relatively high levels of intrastate and interstate mobility. While the negative relationship between status and degree of mobility persists within each of the white- and blue-collar groups of intracity movers, the relationships are positive in direction within the corresponding status groups of interstate migrants, positive for the white-collar group of intrastate migrants, and negative within the blue-collar group. Analysis of the relationship of status to degree of mobility, using broad status categories of white- and blue-collar families, tends to conceal significant variations occurring within the several basic mobility types

TABLE 7:II
MEDIAN INDEX OF MOBILITY
BY MOBILITY TYPE AND SOCIO-ECONOMIC STATUS
SENIOR HIGH SCHOOL PUPILS

Socio-Economic	Type of Mobility			Movers and
Status Group	Intracity	Intrastate	Interstate	Migrants
I	1.40	2.75	3.32	1.86
II	1.73	2.62	2.93	1.98
III	1.68	2.95	3.67	2.10
IV	1.71	3.30	3.47	2.09
Combined Status .	1.58	3.00	3.25	1.99

---

[4] The white-collar group was subclassified into: The SES I group consisted of persons subsumed under the categories of professional, technical, managerial, officials and proprietors; SES II consisted of persons classified as clerical, sales and kindred workers. The blue-collar group was subclassified into: the SES III group, consisting of craftsmen and foremen, and the SES IV group, consisting of operatives, service workers, domestics and laborers.

characteristic of the experiences of the student population. Mobility is not a unique characteristic of lower class families alone, but reflects, at the interstate level, the increasing physical mobility required of the highly skilled professional workers and technicians as well as reflecting, at the intracity level, the status striving behavior of socially mobile families and the search for more suitable housing to meet changing family needs.

Broken Homes, Nonwhite Population and Number of Children. Family characteristics other than socio-economic status also are associated with mobility. First, dissolution of the nuclear family appears to be related to mobility, in that junior and senior high school pupils not living with both biological parents tend to have greater mobility than those from unbroken homes. Whether the residential mobility is a contributory cause, or a result of family disruption due to divorce, is indeterminate in this analysis. As an illustration, the data for senior high school pupils do show that, while 45 per cent of the total sample had experienced at least two or more moves per decade, 62 per cent of those from broken homes had experienced at least as high a degree of mobility, compared to only 39 per cent from unbroken homes. This relationship also is observed in the comparison of nonmovers and mobile families, with reference to their present family situation. For the sample of junior high school pupils, 87.4 per cent of the nonmovers lived with both biological parents, compared to 74.6 per cent of the mobile pupils. Percentages for the senior high school population were practically identical, with 86.6 and 74.1 for the nonmovers and movers, respectively.

Two additional characteristics, race and number of children, also are related to degree of mobility experience, although the amount of relationship appears to be considerably smaller in the case of the junior high school sample. For the senior high school group, 29.2 per cent of the white population had averaged less than one move per decade, compared to only 17.1 per cent of the nonwhite population.

Number of children, showing a slight relationship to mobility for the total sample, was significant only for the highest status group of SES I families. For this group, the families with only one child or with four or more children experienced greater mobility than families with two or three children.

Movement to a new environment, under most conditions, would appear to require some adjustment on the part of the individual. The ease with which such an adjustment is made, and the significance of the mobility experience, would appear to depend in part on whether or not the mobility is a consequence of (1) family dissolution, (2) attempts of a minority group family to achieve greater freedom and economic opportunity, or (3) finding housing suitable for expanding family needs. Knowledge of the degree of mobility alone, without additional information concerning the underlying motivations, appears to be of little value in dealing effectively with a mobile pupil population.

MOBILITY AND PUPILS ADJUSTMENT

Variations in attitudes and behavior reflective of the degree of the pupils' adjustment to school are the resultant of many complex social-psychological factors. Other variables than mobility have significance in the causal network relating to adolescent behavior. However, the objective of the following analysis is to determine the specific relevance which mobility experience has, as an independent variable during the period from birth to adolescence, to the adjustment of the high school pupil. The research design takes cognizance of the importance of socio-economic status as well as type of mobility experience, at the same time holding constant such factors as race and present marital status of the biological parents, which might contribute to the observed variance in attitudes and behavior. This has been accomplished by excluding respondents from disrupted as well as nonwhite families from the analysis, and by using status and type of mobility as statistical controls.

Of the possible indices of school adjustment, school participation and school satisfaction were selected for this analysis. Measurement of school participation and school satisfaction was achieved by means of two Likert-type scales. The first consisted of four items relating to the number of organizations to which the pupil belonged, number of committee memberships, elective and appointive positions held, and the number of school functions attended during the past year. The second scale contained five items dealing with degree of satisfaction with subjects, grades, teachers, and general attitude toward school.

Mobility and Participation in School Activities. Analysis of the participation scale responses of the senior high school pupils reveals a significant relationship between degree of mobility and participation for the pupils from white-collar families with intrastate or interstate mobility experience. Table 7:III shows that higher mobility experience on the part of white-collar migrants is associated with lower participation in school activities. The data suggest a similar negative relationship for blue-collar movers. However, the magnitude of relationship between mobility and participation was less for the remaining groups of white- and blue-collar movers and migrants. On the other hand, the analysis reveals a positive association for white-collar movers and blue-collar migrants. High mobility, which tends to reduce the level of school participation for the white-collar migrant and the blue-collar mover, does not appear to affect the white-collar mover or blue-collar migrant in the same way. This tendency is clearly shown in Table 7:IV.

TABLE 7:III
INDEX OF PARTICIPATION BY DEGREE OF MOBILITY
SENIOR HIGH SCHOOL WHITE-COLLAR MIGRANTS

Index of Participation	Degree of Mobility			Total
	Low	Medium	High	
High	38.1%	30.3%	25.7%	29.5%
Medium	40.5	54.5	38.5	43.8
Low	21.4	15.2	35.8	26.7
Total: %	100.0	100.0	100.0	100.0
N	42	66	109	217

A similar analysis of the junior high school sample reveals a significant relationship

TABLE 7:IV

PROPORTIONS OF PUPILS WITH HIGHEST PARTICIPATION INDEX BY MOBILITY AND STATUS

SENIOR HIGH SCHOOL MOVERS AND MIGRANTS

Mobility		Socio-Economic Status	
Type	Degree	White-Collar	Blue-Collar
Movers (intracity) .	High.	.304	.100
	Medium	.283	.145
	Low	.250	.230
Migrants.	High.	.257	.222
	Medium	.303	.192
	Low	.381	.143

for the white-collar group of movers only. However, in this instance the relationship appears to be more complex, in that both high and low degrees of mobility are associated with a high level of participation, while an intermediate degree of mobility experience is associated with a low level of participation. Differences in types of activities available to junior and senior high school pupils, as well as possible differences in perception of the significance of participation, make inter-school comparisons and evaluation somewhat tenuous.

Mobility and School Satisfaction. The data suggest a moderate relationship between mobility and school satisfaction. High mobility, in general, is associated with lower satisfaction. In the senior high school population, the relationship is particularly significant for the lower status group (II) of the white-collar families, with some evidence indicating a similar relationship for the lower status group (IV) of the blue-collar families. However, for the junior high school pupils, a stronger and more significant pattern of negative relationships persists for white-collar movers and migrants, and is particularly significant for the blue-collar movers. (Table 7:V) The larger size of the relationship between degree of mobility and satisfaction with school for the junior high school pupils, in comparison with senior high school pupils, may be a function of the time interval which has elapsed since the last move. Because much of the residential movement occurs during the early school years, senior high

TABLE 7:V

DEGREE OF SCHOOL SATISFACTION BY DEGREE OF MOBILITY

JUNIOR HIGH SCHOOL BLUE-COLLAR INTRACITY MOVERS

Index of School Satisfaction	Degree of Mobility			Total
	Low	Medium	High	
High.	37.8%	28.8%	16.7%	32.7%
Medium	37.3	37.0	29.2	36.2
Low	24.9	34.2	54.1	31.1
Total: % . .	100.0	100.0	100.0	100.0
N . .	233	111	48	392

school pupils as a group would have had a longer time to adjust to their present school than would pupils in junior high schools. Other conditions being equal, the effect of mobility appears to be less noticeable as length of time since the last move increases.

Mobility and Close Friendships. Because of importance of peer-group relations for the high school pupil, and the effect of residential mobility on his over-all satisfaction with school, mobility was investigated further with respect to its possible effect on the number of close friendships established by pupils. It was hypothesized that degree of mobility would be negatively associated with the number of close friends, on the assumption that frequent moving would tend to break up friendship patterns before they became firmly established. However, data from the senior high school sample do not provide evidence to support such a negative relationship. In fact, for the group of white-collar movers, degree of mobility is associated in a positive direction with the number of friendships. (Table 7:VI) Although contrary to the original hypothesis, this relationship appears to be consistent with the previous analysis, which indicated that the more mobile white-collar movers tend to have higher participation in school activities than the other groups analyzed, a factor which would appear to facilitate the development of friendships. In view of the relationship between number of friends and school satifaction shown in Table 7:VII, mobility, in the case of the white-collar mover,

TABLE 7:VI

NUMBER OF CLOSE FRIENDSHIPS BY DEGREE OF MOBILITY

SENIOR HIGH SCHOOL WHITE-COLLAR INTRACITY MOVERS

Number of Close Friendships	Degree of Mobility			Total
	Low	Medium	High	
Over five	54.1%	63.6%	66.6%	58.7%
Three to five . .	24.3	28.2	27.3	25.9
Two or less. . .	21.6	8.2	6.1	15.4
Total: % . . .	100.0	100.0	100.0	100.0
N . . .	148	85	33	266

TABLE 7:VII

NUMBER OF CLOSE FRIENDSHIPS BY DEGREE OF SCHOOL SATISFACTION

SENIOR HIGH SCHOOL WHITE-COLLAR INTRACITY MOVERS

Index of School Satisfaction	Number of Close Friendships			Total
	Two or Less	Three to Five	More than Five	
High	20.2%	28.2%	32.1%	28.9%
Medium	39.4	43.6	44.0	43.1
Low.	40.4	28.2	23.9	28.0
Total: % . . .	100.0	100.0	100.0	100.0
N . . .	208	284	633	1,125

appears to contribute indirectly to greater school satisfaction.

Patterns of interrelationship between mobility and friendships are different for the junior high school pupils. First, a larger percentage reported two or less close friends, while fewer reported having over five. The significance of these differences probably is not limited to magnitude of the absolute differences. Attempts at "explanation" also must take into account possible differences in meaning of "close friendships," as well as differences in peer- and parent-group orientations, characteristic of these two groups of pupils.

A second significant contrast between junior and senior high school pupils is the lack, in the junior high school sample, of any positive relationship between degree of mobility and number of close friends, found in the white-collar group of senior high school intracity movers. In the junior high school sample, the data show a negative relationship for the blue-collar migrants. (Table 7:VIII)

TABLE 7:VIII

NUMBER OF CLOSE FRIENDSHIPS BY DEGREE OF MOBILITY

JUNIOR HIGH SCHOOL BLUE-COLLAR MIGRANTS

Number of Close Friendships	Degree of Mobility			Total
	Low	Medium	High	
Over five	58.6%	52.7%	43.4%	49.1%
Three to five . .	20.7	29.1	21.7	24.0
Two or less . . .	20.7	18.2	34.9	26.9
Total: %. . .	100.0	100.0	100.0	100.0
N. . .	29	55	83	167

In the junior high school population, the positive relationship between school satisfaction and number of close friends persists, although much smaller in magnitude for the total sample than for the senior high school sample. When status and type of mobility experience are controlled, there is a definite indication that the moderate amount of association for the total sample is due primarily to the significant relationship existing for the blue-collar movers. (Table 7:IX)

TABLE 7:IX

NUMBER OF CLOSE FRIENDSHIPS BY DEGREE OF SCHOOL SATISFACTION

JUNIOR HIGH SCHOOL BLUE-COLLAR INTRACITY MOVERS

Index of School Satisfaction	Number of Close Friendships			Total
	Two or Less	Three to Five	More than Five	
High	26.7%	29.9%	36.6%	32.7%
Medium	34.4	38.1	36.1	36.2
Low	38.9	32.0	27.3	31.1
Total: % . . .	100.0	100.0	100.0	100.0
N . . .	90	97	205	392

Comparative evaluation of the junior and senior high school data must consider the possibility of differences, in both perception and significance, of similar types of activities for the two school populations, as well as characteristic differences in peer and family orientations. Tables 7:VII and 7:IX suggest that, in general, peer relationships are more important for school satisfaction for senior high school pupils than for junior high school pupils. However, peer-group relations assume much greater significance for the junior high school group of blue-collar intracity movers than they do for the other groups.

Relative Significance of Mobility and School Performance for Participation and Satisfaction. The availability of cumulative grade averages for the senior high school pupils provides an additional opportunity to investigate the significance of mobility relative to other variables in the causal nexus. This was achieved by determining the magnitude of relationship between performance and participation for the total sample and for each of the four groups of white- and blue-collar movers and migrants. The contingency coefficient for all groups combined was +.30, indicating that performance was much more closely associated with participation than with mobility. However, the amount of relationship was greater for white-collar migrants than it was for white-collar movers, and blue-collar movers and migrants. A contingency coefficient of +.40 was found between performance and participation for white-collar migrants, compared to +.26, +.24 and +.25 for white-collar movers, and blue-collar movers and migrants, respectively. This demonstrates that the performance-participation relationship is not independent of status and mobility, and that participation in school activities for the white-collar migrant group is much more dependent upon performance in school than it is for the other three groups. However, performance still remains a relatively significant factor for all pupils. In view of the previous analysis of the relationship between degree of mobility and participation, good performance in school would appear to compensate partly for the negative effect which mobility appears to have on participation for the white-collar migrants.

Performance is also closely associated with the senior high school pupil's school satisfaction, as indicated by a contingency coefficient of +.36. Analyses of this relationship within each of the four status and mobility types reveal higher contingency coefficients of +.41 and +.38, respectively, for the white-collar movers and migrants. Corresponding contingency coefficients for the blue-collar movers and migrants are +.33 and +.39, respectively. Performance appears to be somewhat more important for school satisfaction of white-collar movers, white-collar migrants and blue-collar migrants than for blue-collar movers.

SUMMARY

Mobility experiences of junior and senior high school pupils after entering school are very similar, if allowances are made for age differences between the two groups. The two samples had similar distributions with respect to type of mobility, and, in each case, approximately the same magnitude of association was observed between degree and type of mobility. Some differences were found, with the junior high school sample having a larger proportion born in Washington and a larger proportion who had never moved since birth. Part of these differences can be attributed to greater average age of the senior high school population.

Similarly, mobility is associated with such factors as family instability, race and number of children, although, in the latter two cases, the relationships are relatively slight for the junior high school sample. Analysis of socio-economic status and mobility for the high school sample supported an over-all negative relationship, although there appear to be important variations within mobility types.

Analyses of pupil mobility, carried out in relation to school participation, school satisfaction, friendships and observed variations in performance, indicate that, while mobility *per se* may tend to be disruptive of the school organization, by reducing participation in school activities and the pupil's general satisfaction with school, this effect is not uniform throughout the four status and mobility groups. The extent to which mobility acts as a disruptive influence is dependent upon other factors reflective of family socio-economic characteristics and experience, such as race, number of children, present status position and extent of social mobility. For example, where residential mobility appears to be a concomitant of vertical social mobility, it is associated with greater participation in school activities and establishment of a greater number of close friends, as in the case of white-collar movers. For the white-collar migrant, where mobility involves greater distances and the breaking of established social relationships, successful performance in school tends to counteract the potentially negative effects of the mobility experience. For the one group whose residential mobility is most likely not to reflect upward social mobility — blue-collar local movers — higher degrees of mobility tend to be associated with lower participation in school activities and lower satisfaction with school.

While similarities have been observed in relationship of mobility to school adjustment for junior and senior high school pupils, the differences suggest caution in making comparative inferences. It is possible that mobility may be differentially related to adjustment of junior and senior high school pupils not because of differences in impact of mobility *per se*, but because school participation, school satisfaction and close friendships are defined differently by the two groups of pupils.

CHAPTER 8

IMPACT OF MINORITY GROUPS ON SEATTLE PUBLIC SCHOOLS*

Changes in size and composition of a population have appreciable effects on existing institutions. If a school system, for example, is to function effectively, it has to adjust to demographic trends as well as to other changes in the social order. Failure of an institution to adequately adjust to new situations may result in the creation of serious problems, and, in extreme cases, in the disintegration of the institution itself.

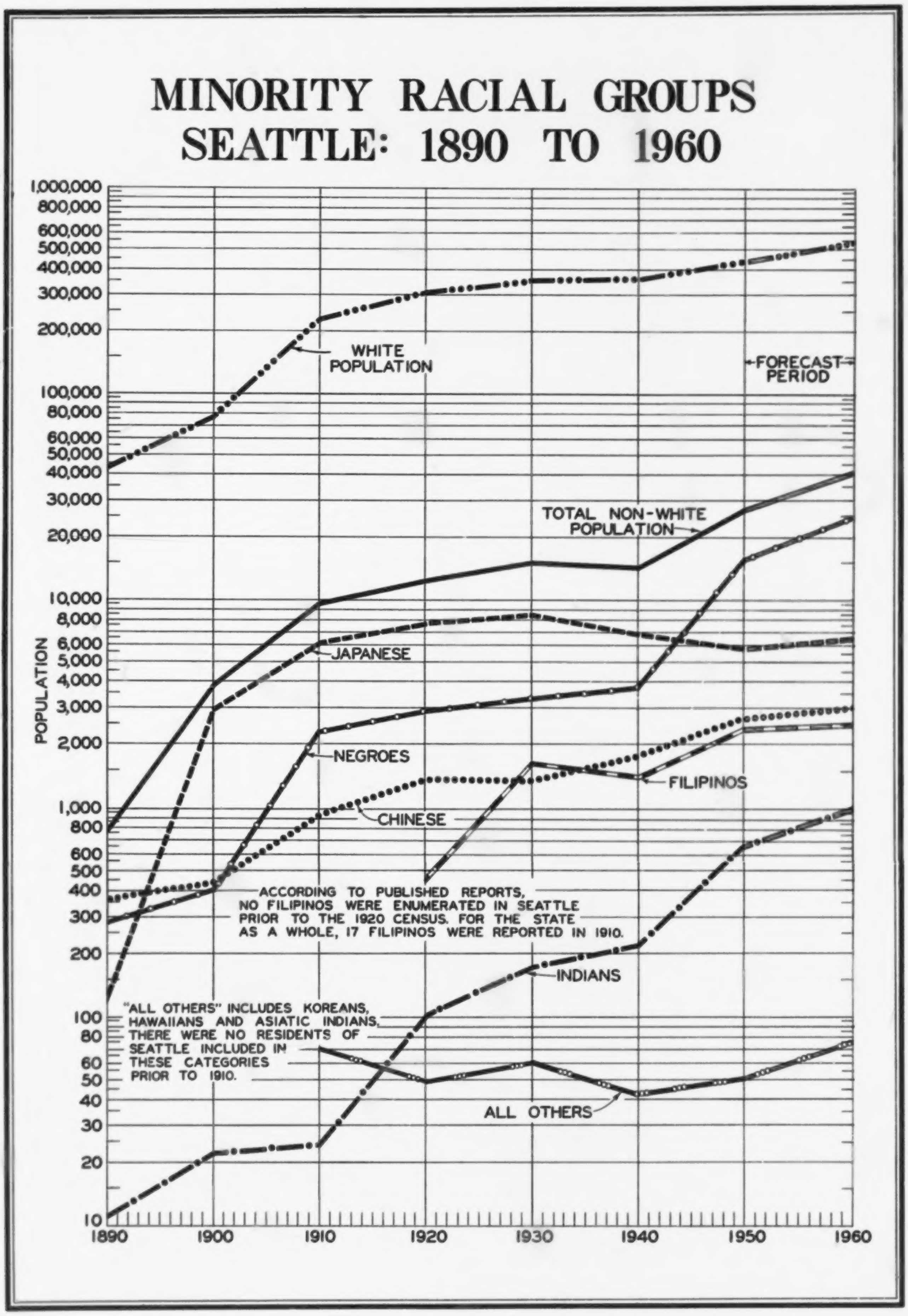
Especially in recent years, the question of minority group education has gained wide recognition and interest among members of school boards and governmental officials, as well as the general public. Frequently, attempts to provide equal educational opportunities for all, and to integrate public schools, have given rise to tension between various groups. Surveys dealing with this specific problem provide valuable information, not only for immediate action, but also for long-range plans. The present chapter focuses on the impact of minority racial groups on the educational system in the city of Seattle, and reports the findings of two surveys relating to this problem. Seattle has a variety of racial and ethnic groups, but only the major ones are considered here. These are Negroes, Japanese and Chinese.

TRENDS IN THE MINORITY RACIAL GROUPS IN SEATTLE

The dominant non-white group in Seattle between 1900 and World War II was the Japanese. The Negroes were second in size until the 1940's. The unprecedented migration of Negroes to the Pacific Coast accounted for the pronounced growth of this group during the 1940-50 intercensal period. The Chinese, unlike Negroes and Japanese, is the only non-white group whose size in proportion to the city total has not changed appreciably since 1900. Furthermore, the Chinese experienced relatively little absolute growth. From 1890 to 1940, the trend in growth of the total non-white population of Seattle paralleled the trend in the white population. Subsequent to 1940, however, the non-white population increased at a much greater rate than the white population, primarily because of a fourfold growth in the number of Negroes. Filipinos first appeared in the 1920 census reports with a total of 458. Over 2,300 Filipinos were reported in 1950. The number of Indians in Seattle has always been relatively small, with 666 in 1950. Figure 8:I portrays changes in various minority racial groups and total non-white population in Seattle, as well as in the white population, from 1890 to 1950, with estimated trends to 1960.

---

*Prepared in collaboration with Baha Abu-Laban, research assistant, Office of Population Research and Washington State Census Board.



MINORITY RACIAL GROUPS
SEATTLE: 1890 TO 1960

ACCORDING TO PUBLISHED REPORTS, NO FILIPINOS WERE ENUMERATED IN SEATTLE PRIOR TO THE 1920 CENSUS. FOR THE STATE AS A WHOLE, 17 FILIPINOS WERE REPORTED IN 1910.

"ALL OTHERS" INCLUDES KOREANS, HAWAIIANS AND ASIATIC INDIANS. THERE WERE NO RESIDENTS OF SEATTLE INCLUDED IN THESE CATEGORIES PRIOR TO 1910.

Figure 8:1

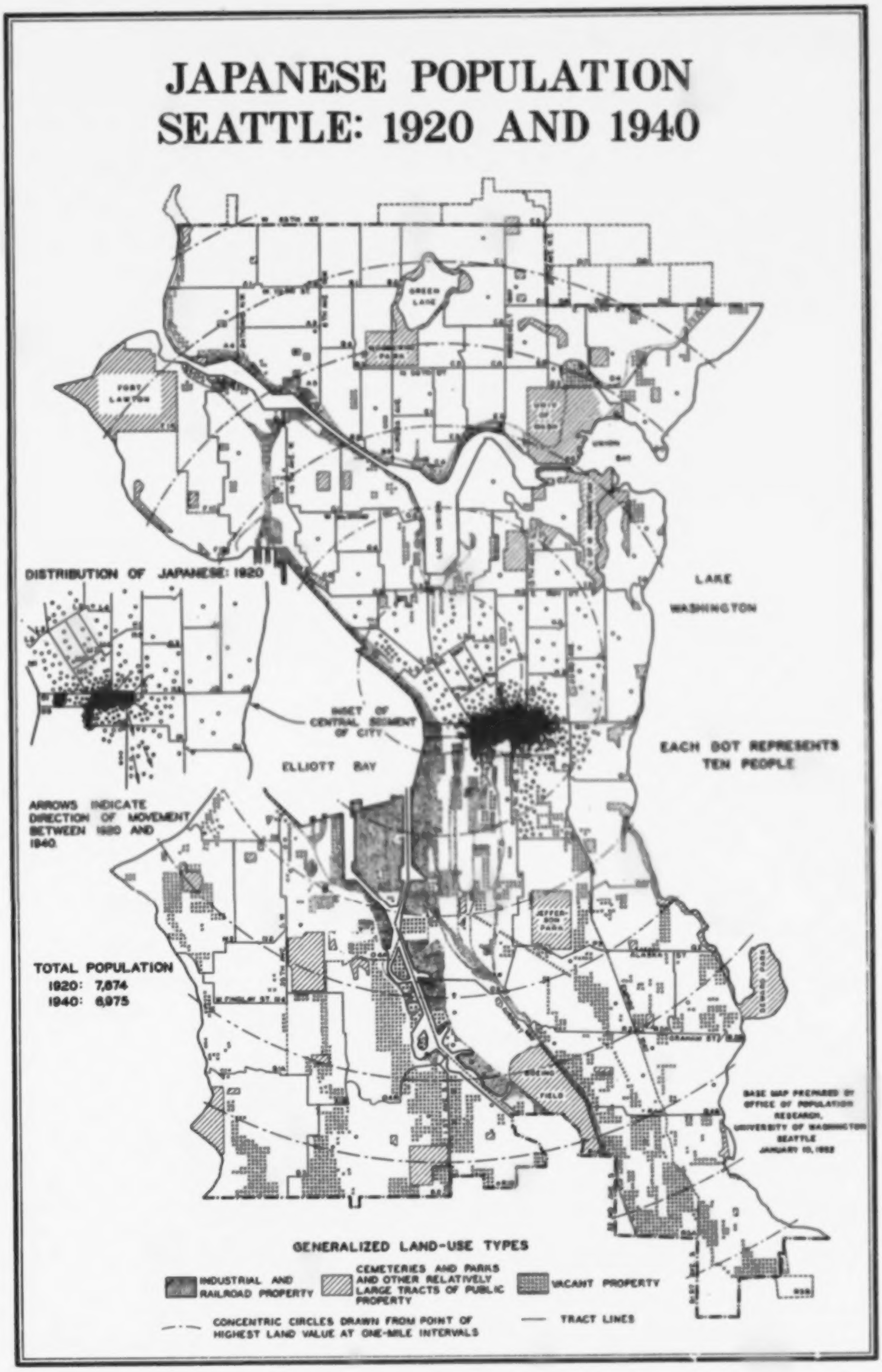

JAPANESE POPULATION
SEATTLE: 1920 AND 1940
GREEN LAKE
FORT LAWTON
UNION BAY
LAKE WASHINGTON
DISTRIBUTION OF JAPANESE: 1920
INSET OF CENTRAL SEGMENT OF CITY
ELLIOTT BAY
EACH DOT REPRESENTS TEN PEOPLE
ARROWS INDICATE DIRECTION OF MOVEMENT BETWEEN 1920 AND 1940
JEFFERSON PARK
TOTAL POPULATION
1920: 7,874
1940: 6,975
BOEING FIELD
BASE MAP PREPARED BY OFFICE OF POPULATION RESEARCH, UNIVERSITY OF WASHINGTON SEATTLE JANUARY 10, 1952
GENERALIZED LAND-USE TYPES
INDUSTRIAL AND RAILROAD PROPERTY
CEMETERIES AND PARKS AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC PROPERTY
VACANT PROPERTY
CONCENTRIC CIRCLES DRAWN FROM POINT OF HIGHEST LAND VALUE AT ONE-MILE INTERVALS
TRACT LINES

Figure 8:2

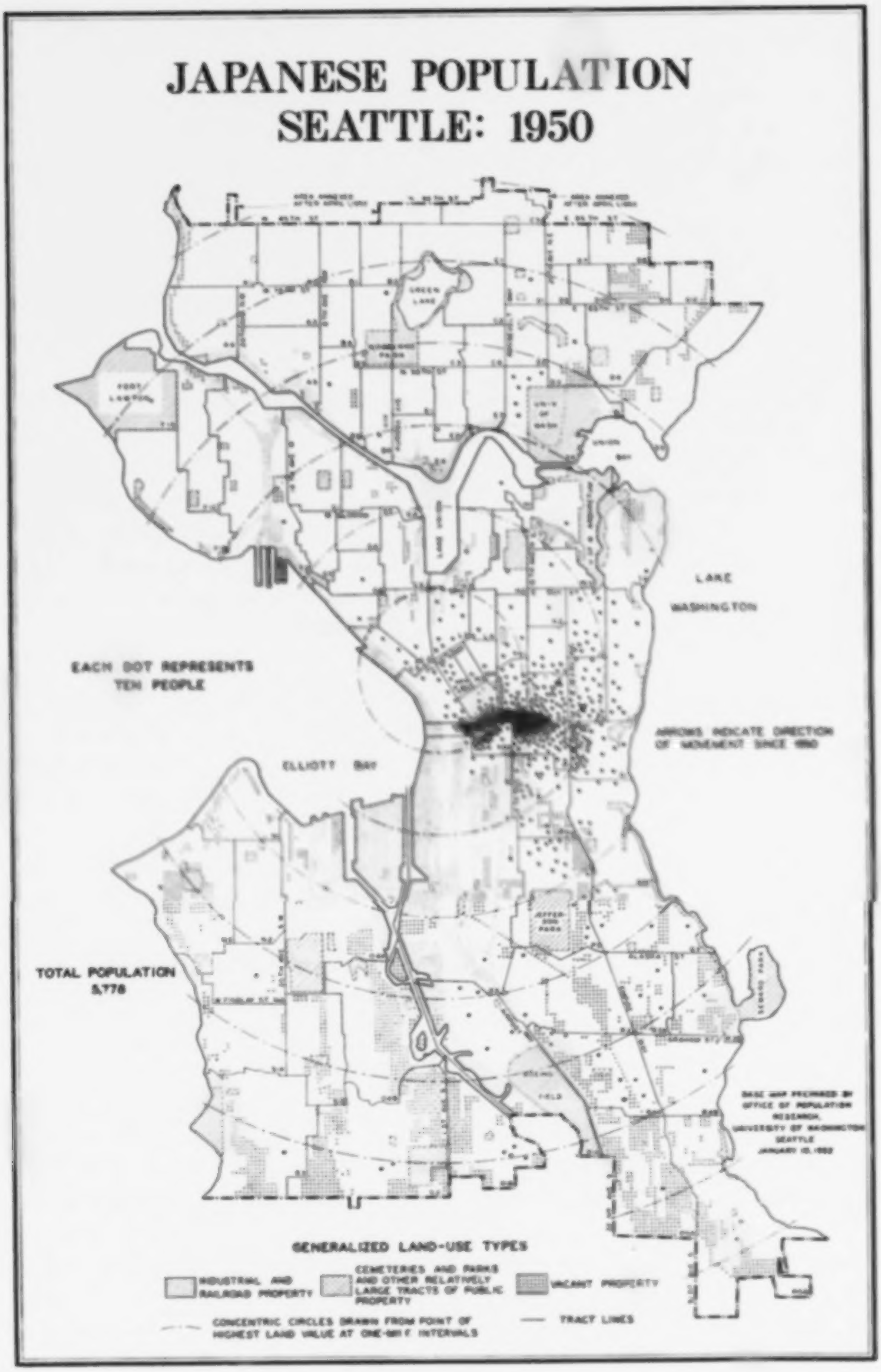

JAPANESE POPULATION
SEATTLE: 1950
GREEN LAKE
FORT LAWTON
UNION BAY
LAKE UNION
LAKE WASHINGTON
EACH DOT REPRESENTS TEN PEOPLE
ELLIOTT BAY
ARROWS INDICATE DIRECTION OF MOVEMENT SINCE
JEFFERSON PARK
TOTAL POPULATION 5,778
SEWARD PARK
BOEING FIELD
BASE MAP PREPARED BY OFFICE OF POPULATION RESEARCH, UNIVERSITY OF WASHINGTON SEATTLE
GENERALIZED LAND-USE TYPES
INDUSTRIAL AND RAILROAD PROPERTY
CEMETERIES AND PARKS AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC PROPERTY
VACANT PROPERTY
CONCENTRIC CIRCLES DRAWN FROM POINT OF HIGHEST LAND VALUE AT ONE-MILE INTERVALS
TRACT LINES

Figure 8:3

TRENDS AND RESIDENTIAL PATTERNING OF MINORITY RACIAL GROUPS

The Japanese Population. It will be observed from Figure 8:I that the Japanese population changed from 2,990 (3.7 per cent of the city total) in 1900, to 6,127 (2.6 per cent) in 1910; to 7,874 (2.5 per cent) in 1920; and to 8,448 (2.3 per cent) in 1930. In 1940, Seattle had 6,975 (1.9 per cent) Japanese, and by 1950 there were 5,778 Japanese, or only 1.2 per cent of a total population of 467,591 in the city. The decrease of Japanese during the 1930-1940 decade was general throughout the country and was a consequence mainly of the 'depression' and of immigration restrictions. The further decline of the Japanese population between 1940 and 1950 along the Pacific Coast can be explained by their evacuation and relocation during World War II.

Figures 8:2 and 8:3 show the distribution of the Japanese population in 1920, 1940 and 1950. The heaviest concentration is to be found in the vicinity of Yesler Way, extending roughly from 5th to 23rd Avenue. The western end of the clustering represents the older part of the community and also the main business district. Since 1920, and up until the time of evacuation, the Japanese have evidenced a definite tendency to move away from the old center. However, the 1940 and 1950 residential distributions of the Japanese indicate that the segregation pattern still persists to a marked degree. This, as we shall see later, is a phenomenon not peculiar to this group alone.

The Negro Population. It was not until after the outbreak of World War II that the Negro population of Seattle showed any considerable growth. In 1910, Seattle had only 2,296 Negroes out of a total population of 237,194; in 1920, there were 2,894 Negroes; 3,303 in 1930, and 3,789 in 1940. Between 1940 and 1950, however, there was a significant increase to 15,666 -- a growth of more than 300 per cent. It is estimated that the 1960 Negro population approximates 24,000.

The recent increase of Negroes in Seattle reflects the extraordinary movement of Negroes to the north and west. All major cities on the Pacific Coast have shown similar trends.

In Seattle, as in all large American cities, the Negro population shows a marked degree of spatial segregation. This pattern of residential segregation is, of course, manifested by other minority groups. As a consequence of the natural sifting and sorting processes of competition, conflict, mobility and differentiation, natural areas -- typified by people of distinctive economic and social levels, standards of life, traditions, values and other characteristics -- come into existence in every large urban community. There are "gold coasts" and slums, rooming house areas and apartment house districts, middle-class and working-class neighborhoods, Jewish ghettoes, "little Italies" and many other types of cultural and natural areas. In the development of Negro residential segregation patterns in the large city, the prejudice of the dominant white group and internal cohesion and low economic status of the Negro are particularly important factors.

The oldest Negro section in Seattle is situated on Madison Street, centering around 21st to 23rd Avenues. This area was occupied solely by Caucasians until about 1890, when

NEGRO POPULATION
SEATTLE: 1920

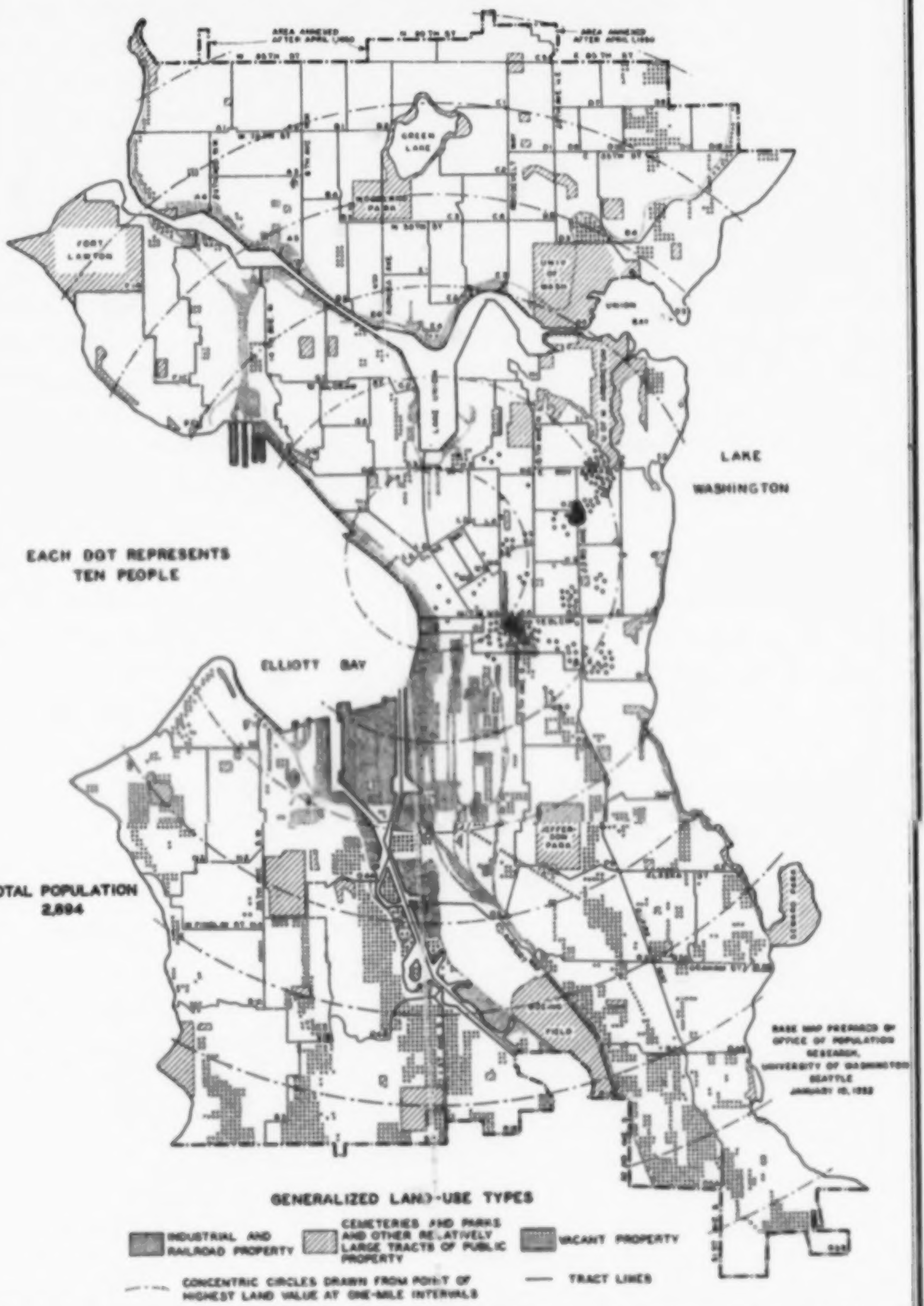

AREA ANNEXED AFTER APRIL 1, 1950
N. 85TH ST.
AREA ANNEXED AFTER APRIL 1, 1950
E. 85TH ST.
GREEN LAKE
WOODLAND PARK
FORT LAWTON
UNIV. OF WASH.
UNION BAY
LAKE WASHINGTON
EACH DOT REPRESENTS TEN PEOPLE
ELLIOTT BAY
JEFFERSON PARK
TOTAL POPULATION 2,894
BOEING FIELD
BASE MAP PREPARED BY OFFICE OF POPULATION RESEARCH, UNIVERSITY OF WASHINGTON SEATTLE
GENERALIZED LAND-USE TYPES
INDUSTRIAL AND RAILROAD PROPERTY
CEMETERIES AND PARKS AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC PROPERTY
VACANT PROPERTY
CONCENTRIC CIRCLES DRAWN FROM POINT OF HIGHEST LAND VALUE AT ONE-MILE INTERVALS
TRACT LINES

Figure 8:4

NEGRO POPULATION
SEATTLE: 1940

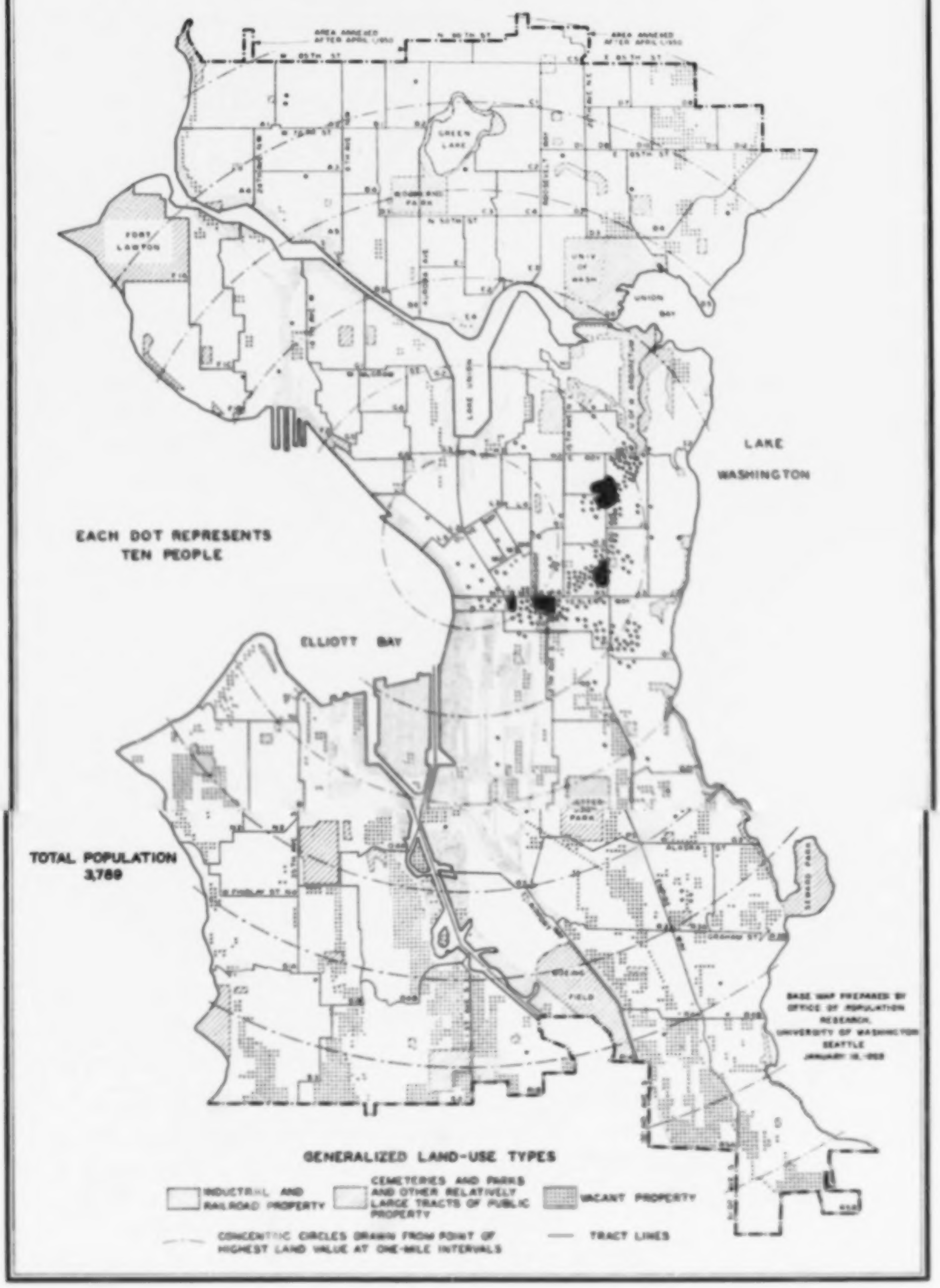

LAKE WASHINGTON
EACH DOT REPRESENTS TEN PEOPLE
ELLIOTT BAY
TOTAL POPULATION 3,789
GREEN LAKE
FORT LAWTON
UNIV OF WASH
UNION BAY
LAKE UNION
BOEING FIELD
SEWARD PARK
BASE MAP PREPARED BY OFFICE OF POPULATION RESEARCH UNIVERSITY OF WASHINGTON SEATTLE
GENERALIZED LAND-USE TYPES
INDUSTRIAL AND RAILROAD PROPERTY
CEMETERIES AND PARKS AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC PROPERTY
VACANT PROPERTY
CONCENTRIC CIRCLES DRAWN FROM POINT OF HIGHEST LAND VALUE AT ONE-MILE INTERVALS
TRACT LINES

Figure 8:5

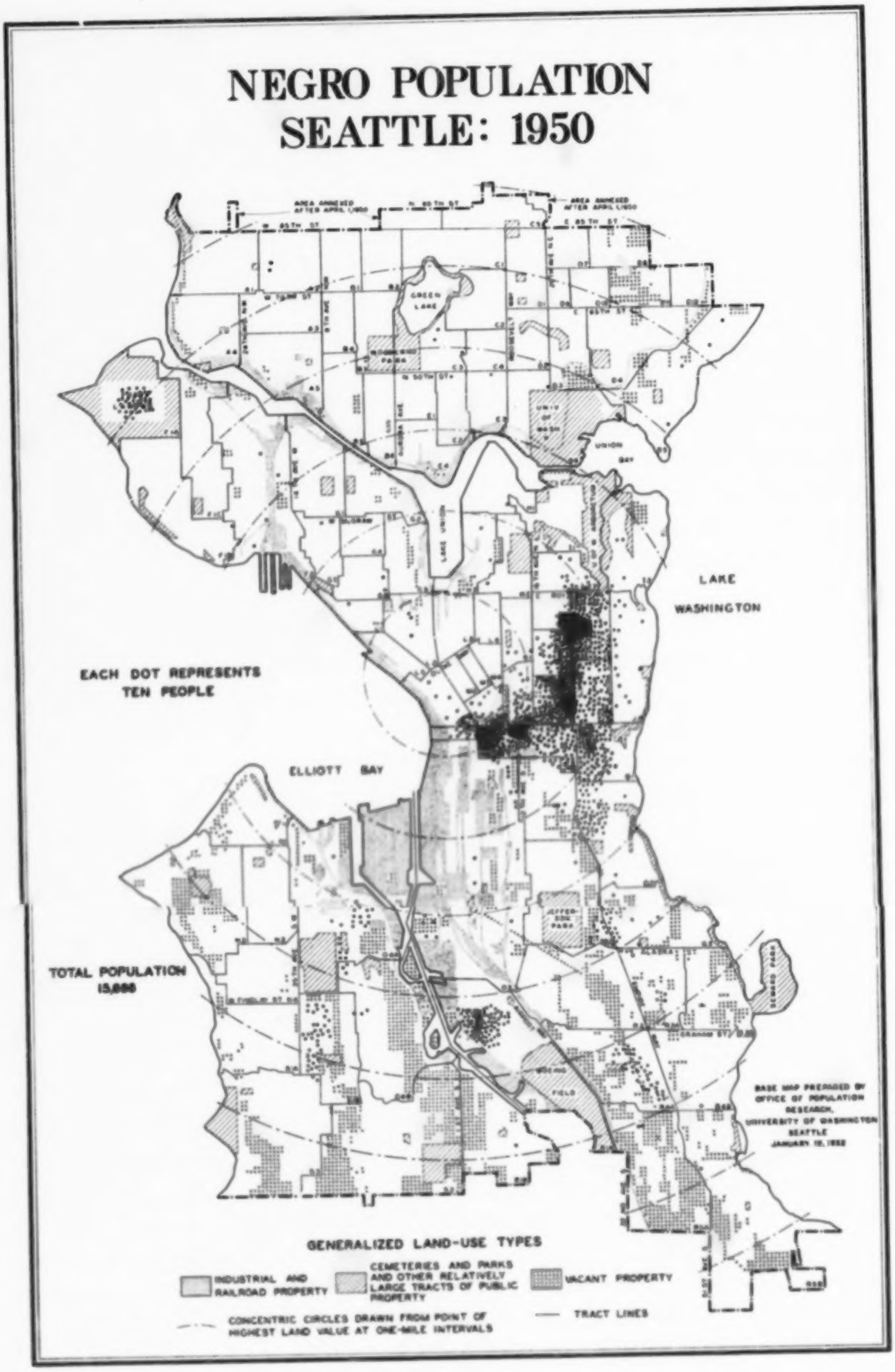

NEGRO POPULATION
SEATTLE: 1950
AREA ANNEXED AFTER APRIL 1,1950
N. 85TH ST
W. 85TH ST
E. 85TH ST
GREEN LAKE
WOODLAND PARK
UNIV. OF WASH.
UNION BAY
LAKE UNION
LAKE WASHINGTON
EACH DOT REPRESENTS TEN PEOPLE
ELLIOTT BAY
JEFFERSON PARK
SEWARD PARK
TOTAL POPULATION 15,666
BOEING FIELD
BASE MAP PREPARED BY OFFICE OF POPULATION RESEARCH, UNIVERSITY OF WASHINGTON SEATTLE JANUARY 12, 1952
GENERALIZED LAND-USE TYPES
INDUSTRIAL AND RAILROAD PROPERTY
CEMETERIES AND PARKS AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC PROPERTY
VACANT PROPERTY
CONCENTRIC CIRCLES DRAWN FROM POINT OF HIGHEST LAND VALUE AT ONE-MILE INTERVALS
TRACT LINES

Figure 8:6

William Gross, a Negro, was given a large amount of land in this area in settlement for a debt. At the time, most of the Negroes were living near the center of the city on 5th to 14th Avenues. With the move of Mr. Gross and his family to the "hill," the invasion of this area by Negroes began. The settlement of Negroes in the Madison Hill district was thus in a real sense an historical accident related almost wholly to a unique person, William Gross. He held a position of wealth and power, not only among Negroes, but also in the larger Seattle community.

In 1920, as will be observed from Figure 8:4, most of the 2,894 Negroes in Seattle resided in two more or less spatially and socially separated locales. These were the Madison Street area and the "Cross-Town" community on Jackson Street — a transitional area south and east of the central business district of the city. The Madison Street community may be characterized as a conservative, home-owning, bourgeois class of Negroes, while the residents of the Cross-Town area were predominantly males employed as railroad workers, bartenders, waiters, entertainers and laborers. Although the Negro population increased only slightly up to World War II, there was a definite tendency for Negroes to fill in the interstices between the Madison Street and Cross-Town nuclei. By 1940 there were four small, but more or less distinct, sub-areas radiating from both Madison and Jackson Streets.

Since World War II, the original Negro areas have shown a pronounced expansion in almost all directions. As indicated above, the Negro population increased from less than 4,000 in 1940 to over 15,000 in 1950, and probably to 24,000 at the present time. Negroes have taken over predominantly white neighborhoods and moved into areas in which no Negroes had ever resided. Also, Negroes in large numbers have moved into public housing projects located relatively long distances from the central communities.

The Chinese Population. As indicated above, the proportion of the Chinese population in the population of Seattle has been relatively stable since the turn of the century. As early as 1900, Seattle had 438 Chinese out of a total population of 80,671; in 1910, there were 924 Chinese (.4 per cent); 1,347 in 1930 (.4 per cent); 1,781 in 1940 (.5 per cent); and 2,650 in 1950 (.6 per cent).

Like other racial groups, the Chinese have evidenced a marked tendency to segregate in the marginal area directly south of Yesler Way. The successive locations of Chinatown, from the early 1870's to the present time, have shifted relatively only a few blocks. The present center of Chinatown is on Seventh Avenue between King and Weller and on King between Seventh and Eighth Avenues.

It is clear from the above discussion that the minority racial communities in Seattle are by no means stable or permanently established. Furthermore, there is always some intracity migration. This is especially true when large numbers of a particular race move into the city and fill up the existing districts to such an extent that they are compelled to find an outlet in dwelling units in some other part of the city. This phenomenon has been clearly illustrated many times in recent years by the migration of Negroes into and within the larger northern industrial cities, and is reflected, as we shall see later, in the enrollment figures of various minorities in Seattle public schools.

ETHNIC PATTERNS IN SCHOOL ATTENDANCE AREAS

The basic residential segregation of the Negro population, as well as of other minority racial groups, is indicated in school enrollments in the various attendance areas throughout the city of Seattle. In an ethnic survey of Seattle public schools in December, 1957, it was found that of the 92,343 pupils enumerated, 83,610, or 90.5 per cent were classified as Caucasian; 5,390, or 5.8 per cent, Negro; 1,609, or 1.7 per cent, Japanese; 804, or .9 per cent, Chinese; and 930, or 1.0 per cent, "all other." (Table 8:I) For enrollment in the three basic types of schools — elementary, junior high and senior high — these percentages remain relatively the same, except in the case of Negroes. The proportion of Negroes in elementary schools was 6.8 per cent; in junior high schools, 4.5 per cent; and in senior high schools, 3.8 per cent. Two of the possible explanations for this trend are: (1) Negro children leave school earlier and do not continue their education through high school, thus rerlecting a progressive diminution from the lower to the upper grades, and (2) the Negro population, including recent inmigrants, comprises a disproportionately large and increasing number of younger children that could account for these grade level differentials.

TABLE 8:I

DISTRIBUTION OF PUBLIC SCHOOL ENROLLMENT

BY ETHNIC GROUP AND TYPE OF SCHOOL

SEATTLE: DECEMBER, 1957

Race	All Schools		Senior High		Junior High		Elementary	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Total	92,343	100.0	15,529	100.0	17,817	100.0	58,997	100.0
White	83,610	90.5	14,461	93.1	16,483	92.5	52,666	89.3
Negro.	5,390	5.8	591	3.8	805	4.5	3,994	6.8
Japanese . . .	1,609	1.7	253	1.6	322	1.8	1,034	1.8
Chinese . . .	804	.9	120	.8	84	.5	600	1.0
All Other . . .	930	1.0	104	.7	123	.7	703	1.2

Again, percentage distributions based on the respective totals of each racial group according to type of school also show differences for Negroes. Of the 83,610 white children, 63.0 per cent were in elementary school, 19.7 per cent were in junior high school and 17.3 per cent in senior high school, whereas the corresponding percentages for the 5,390 Negro children were 74.1, 14.9 and 11.0. By comparison, the Japanese show a distribution similar to that of the white population — 64.3 per cent in elementary school, 20.0 per cent in junior high school and 15.7 per cent in senior high school.

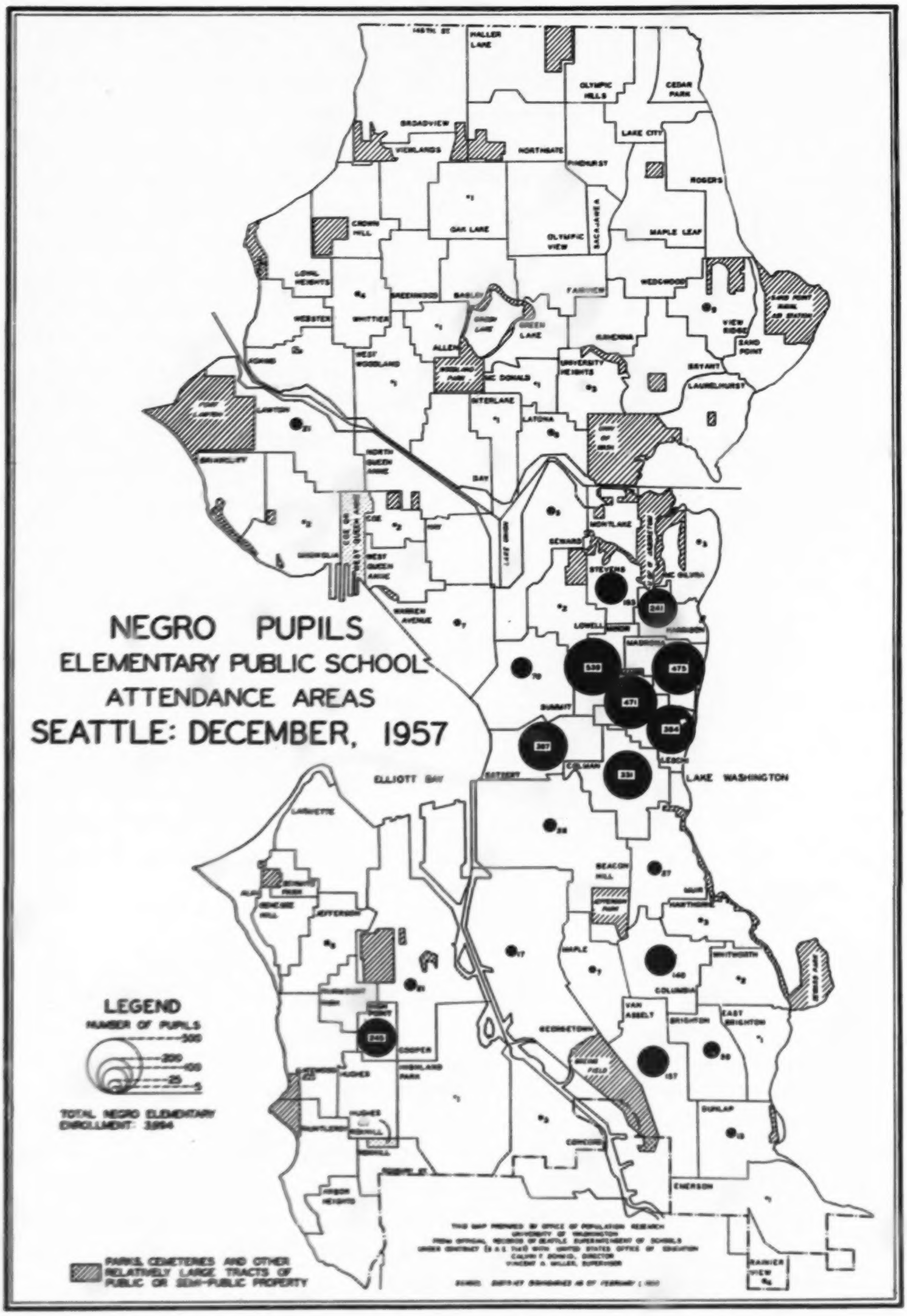

NEGRO PUPILS
ELEMENTARY PUBLIC SCHOOL
ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
LEGEND
NUMBER OF PUPILS
500
200
100
25
5
TOTAL NEGRO ELEMENTARY ENROLLMENT: 3994
PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY
ELLIOTT BAY
LAKE WASHINGTON
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
UNDER CONTRACT WITH UNITED STATES OFFICE OF EDUCATION
CALVIN F. SCHMID, DIRECTOR
VINCENT A. MILLER, SUPERVISOR
WALLER LAKE
OLYMPIC HILLS
CEDAR PARK
BROADVIEW
VIEWLANDS
NORTHGATE
LAKE CITY
PINEHURST
ROGERS
CROWN HILL
OAK LAKE
OLYMPIC VIEW
SACAJAWEA
MAPLE LEAF
LOYAL HEIGHTS
GREENWOOD
BAGLEY
WEDGWOOD
WEBSTER
WHITTIER
GREEN LAKE
RAVENNA
VIEW RIDGE
SAND POINT
ADAMS
WEST WOODLAND
ALLEN
UNIVERSITY HEIGHTS
BRYANT
McDONALD
LAURELHURST
LAWTON
INTERLAKE
LATONA
NORTH QUEEN ANNE
BRIARCLIFF
COE
MONTLAKE
SEWARD
STEVENS
McGILVRA
WEST QUEEN ANNE
WARREN AVENUE
LOWELL
HARRISON
MADRONA
SUMMIT
LESCHI
COLMAN
BATTERY
LAFAYETTE
BEACON HILL
JEFFERSON
MUIR
HAWTHORNE
MAPLE
WHITWORTH
COLUMBIA
HIGH POINT
COOPER
HIGHLAND PARK
VAN ASBELT
BRIGHTON
EAST BRIGHTON
GEORGETOWN
HUGHES
FAUNTLEROY
DUNLAP
CONCORD
ARBOR HEIGHTS
EMERSON
RAINIER VIEW
530
473
471
394
387
334
241
185
245
157
140
70
50
37
28
21
17
13

Figure 8:7

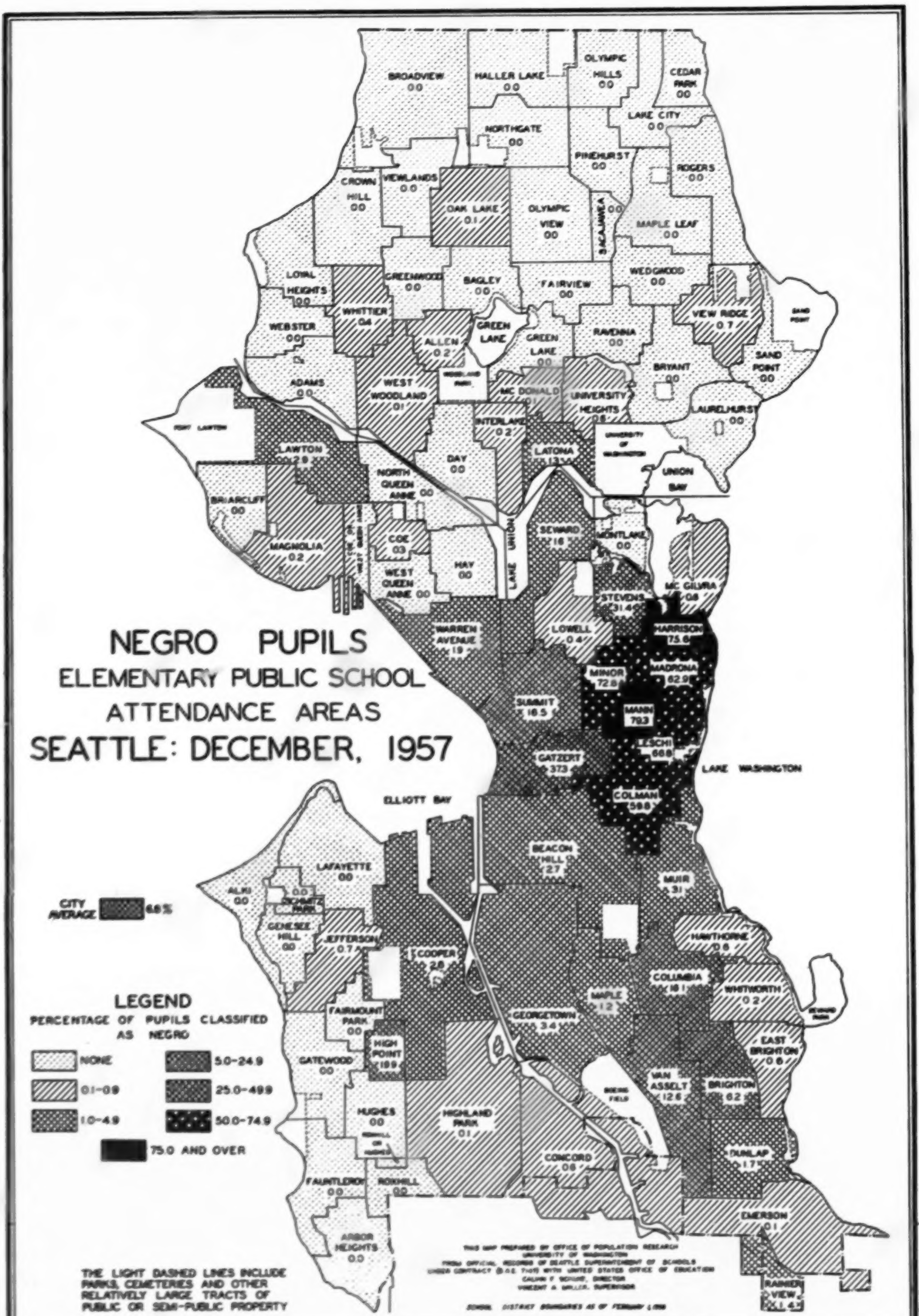

NEGRO PUPILS
ELEMENTARY PUBLIC SCHOOL
ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
BROADVIEW 00
HALLER LAKE 00
OLYMPIC HILLS 00
CEDAR PARK 00
LAKE CITY 00
NORTHGATE 00
PINEHURST 00
ROGERS 00
CROWN HILL 00
VIEWLANDS 0.0
OAK LAKE 0.1
OLYMPIC VIEW 00
SACAJAWEA 00
MAPLE LEAF 00
LOYAL HEIGHTS 00
GREENWOOD 00
BAGLEY 00
FAIRVIEW 00
WEDGWOOD 00
WHITTIER 04
WEBSTER 00
ALLEN 0.2
GREEN LAKE
GREEN LAKE 00
RAVENNA 00
VIEW RIDGE 0.7
SAND POINT
SAND POINT 00
BRYANT 00
ADAMS 00
WOODLAND PARK
WEST WOODLAND 01
MC DONALD 01
UNIVERSITY HEIGHTS 08
LAURELHURST 00
FORT LAWTON
LAWTON 2.8
INTERLAKE 0.2
DAY 00
LATONA 13.4
UNIVERSITY OF WASHINGTON
UNION BAY
NORTH QUEEN ANNE 00
BRIARCLIFF 00
MAGNOLIA 0.2
COE 03
WEST QUEEN ANNE 00
HAY 00
LAKE UNION
SEWARD 16
MONTLAKE 00
MC GILVRA 08
STEVENS 31.4
WARREN AVENUE 19
LOWELL 0.4
HARRISON 75.6
MINOR 72.8
MADRONA 62.9
SUMMIT 16.5
MANN 79.3
LESCHI 68.8
GATZERT 37.3
LAKE WASHINGTON
COLMAN 59.8
ELLIOTT BAY
BEACON HILL 2.7
LAFAYETTE 00
ALKI 00
0.0
SCHMITZ PARK
GENESEE HILL 00
JEFFERSON 0.7
MUIR 3.1
CITY AVERAGE 6.8%
COOPER 2.8
HAWTHORNE 0.8
COLUMBIA 18.1
WHITWORTH 0.2
MAPLE 1.2
SEWARD PARK
LEGEND
PERCENTAGE OF PUPILS CLASSIFIED AS NEGRO
NONE
0.1-0.9
1.0-4.9
5.0-24.9
25.0-49.9
50.0-74.9
75.0 AND OVER
FAIRMOUNT PARK 00
GEORGETOWN 3.4
HIGH POINT 19.9
EAST BRIGHTON 0.8
GATEWOOD 00
BOEING FIELD
VAN ASSELT 12.6
BRIGHTON 6.2
HUGHES 00
ROXHILL OR HUGHES
HIGHLAND PARK 0.1
DUNLAP 1.7
CONCORD 08
FAUNTLEROY 0.0
ROXHILL 00
EMERSON 0.1
ARBOR HEIGHTS 0.0
THE LIGHT DASHED LINES INCLUDE PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
UNDER CONTRACT [illegible] WITH UNITED STATES OFFICE OF EDUCATION
CALVIN F. SCHMID, DIRECTOR
VINCENT A. MILLER, SUPERVISOR
SCHOOL DISTRICT BOUNDARIES AS OF FEBRUARY 1958
RAINIER VIEW 1.4

Figure 8:8

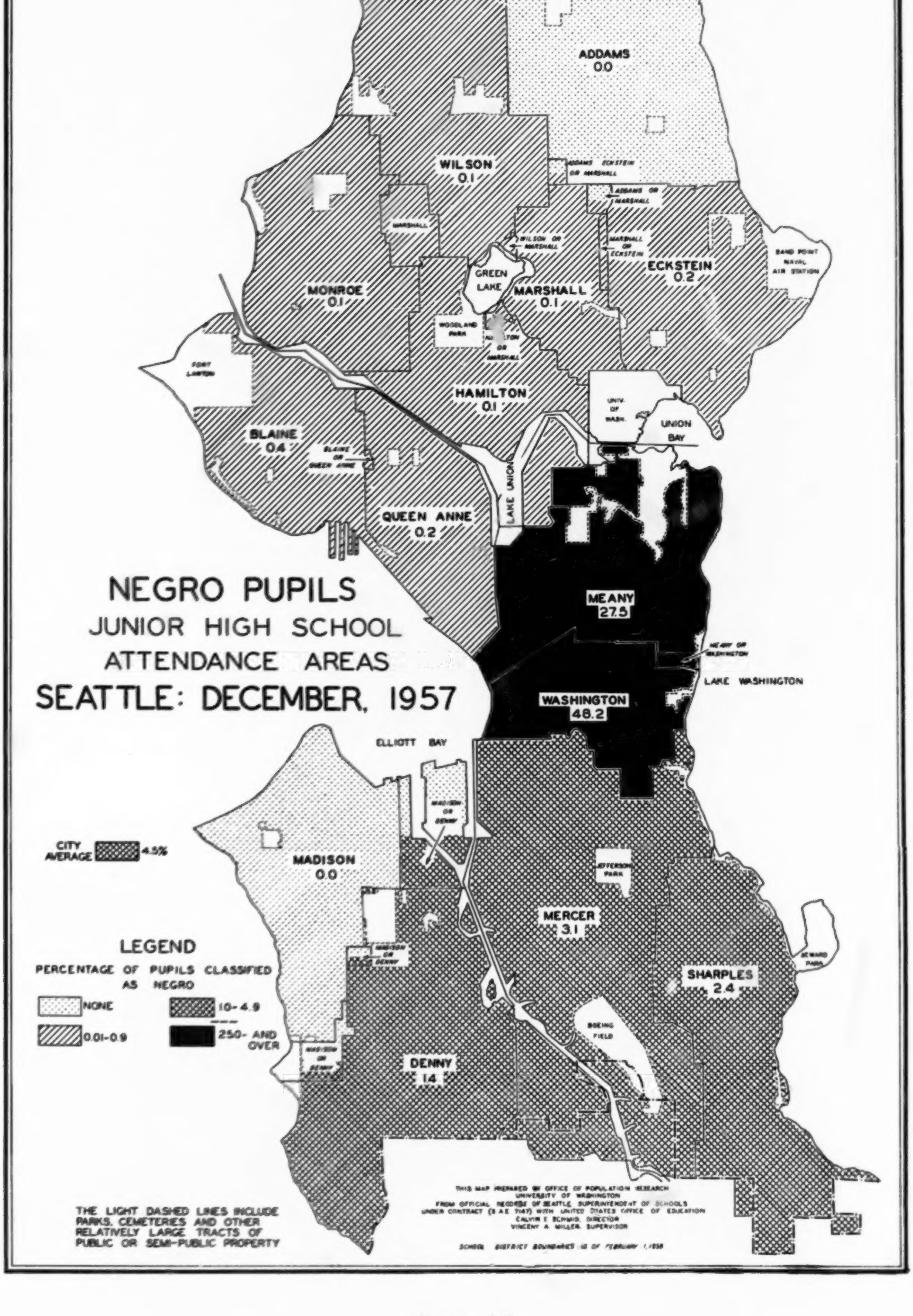

NEGRO PUPILS
JUNIOR HIGH SCHOOL
ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
ADDAMS
0.0
WILSON
0.1
ADDAMS ECKSTEIN OR MARSHALL
ADDAMS OR MARSHALL
MARSHALL
WILSON OR MARSHALL
MARSHALL OR ECKSTEIN
SAND POINT NAVAL AIR STATION
ECKSTEIN
0.2
GREEN LAKE
MONROE
0.1
MARSHALL
0.1
WOODLAND PARK
HAMILTON OR MARSHALL
FORT LAWTON
HAMILTON
0.1
UNIV. OF WASH.
UNION BAY
BLAINE
0.4
BLAINE OR QUEEN ANNE
LAKE UNION
QUEEN ANNE
0.2
MEANY
27.5
MEANY OR WASHINGTON
LAKE WASHINGTON
WASHINGTON
48.2
ELLIOTT BAY
MADISON OR DENNY
CITY AVERAGE
4.5%
MADISON
0.0
JEFFERSON PARK
MERCER
3.1
SEWARD PARK
LEGEND
PERCENTAGE OF PUPILS CLASSIFIED AS NEGRO
NONE
10-4.9
0.01-0.9
250- AND OVER
SHARPLES
2.4
BOEING FIELD
MADISON OR DENNY
DENNY
1.4
THE LIGHT DASHED LINES INCLUDE PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
UNDER CONTRACT (S.A.E. 7147) WITH UNITED STATES OFFICE OF EDUCATION
CALVIN F. SCHMID, DIRECTOR
VINCENT A. MILLER, SUPERVISOR
SCHOOL DISTRICT BOUNDARIES AS OF FEBRUARY 1, 1958

Figure 8:9

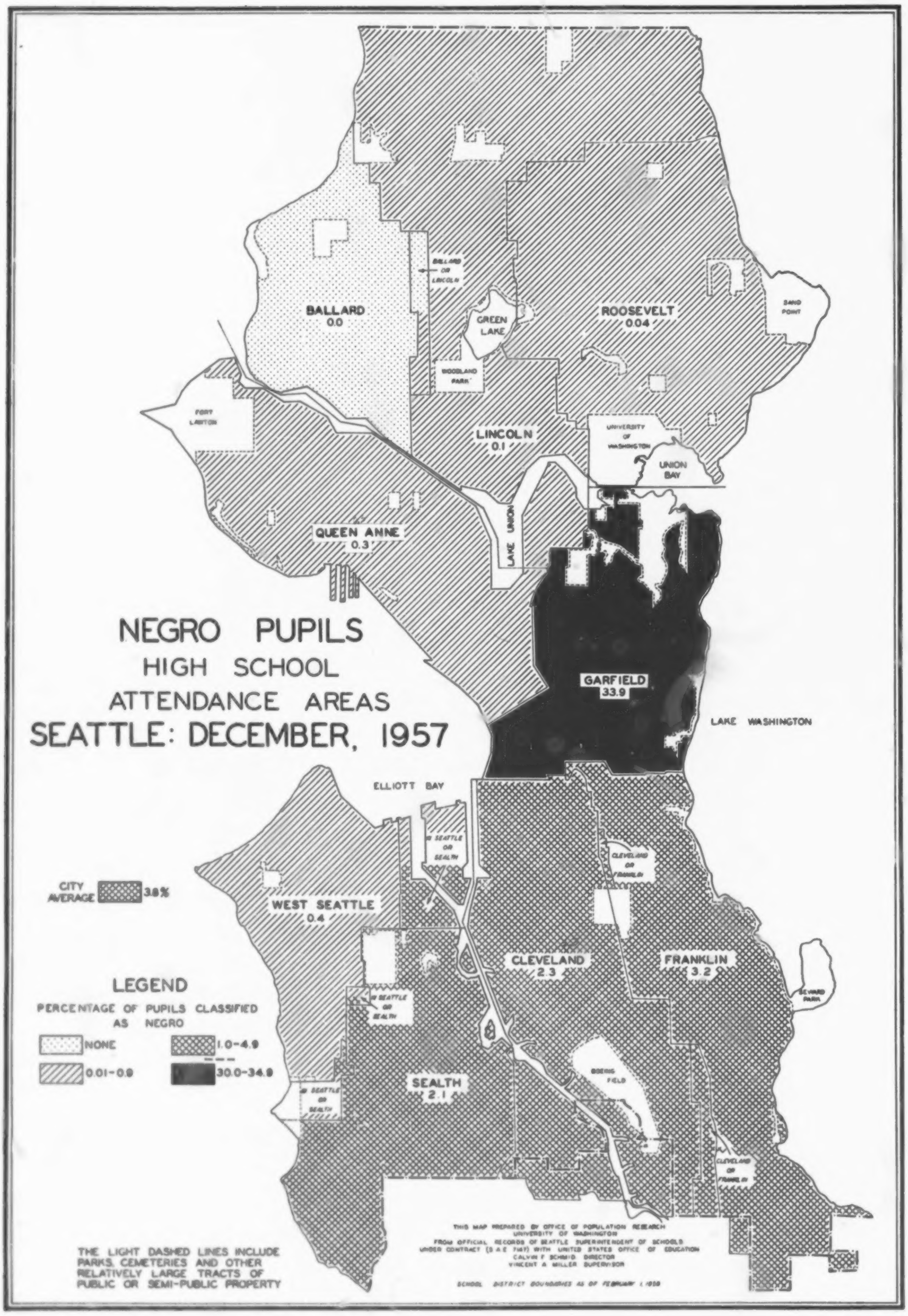

NEGRO PUPILS
HIGH SCHOOL
ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
BALLARD
0.0
BALLARD OR LINCOLN
GREEN LAKE
WOODLAND PARK
ROOSEVELT
0.04
SAND POINT
FORT LAWTON
LINCOLN
0.1
UNIVERSITY OF WASHINGTON
UNION BAY
QUEEN ANNE
0.3
LAKE UNION
GARFIELD
33.9
LAKE WASHINGTON
ELLIOTT BAY
WEST SEATTLE OR SEALTH
CLEVELAND OR FRANKLIN
CITY AVERAGE
3.8%
WEST SEATTLE
0.4
CLEVELAND
2.3
FRANKLIN
3.2
SEWARD PARK
LEGEND
PERCENTAGE OF PUPILS CLASSIFIED AS NEGRO
NONE
0.01-0.9
1.0-4.9
30.0-34.9
WEST SEATTLE OR SEALTH
SEALTH
2.1
BOEING FIELD
WEST SEATTLE OR SEALTH
CLEVELAND OR FRANKLIN
THE LIGHT DASHED LINES INCLUDE PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
UNDER CONTRACT (S A E 7167) WITH UNITED STATES OFFICE OF EDUCATION
CALVIN F SCHMID DIRECTOR
VINCENT A MILLER SUPERVISOR
SCHOOL DISTRICT BOUNDARIES AS OF FEBRUARY 1, 1958

Figure 8:10

Negro Pupils. Figures 8:7 through 8:10 clearly portray the differential distribution of Negroes in the various school attendance areas throughout the city of Seattle.[1] Among the 86 elementary schools, 81.0 per cent of the Negro children were to be found in nine -- Colman, Gatzert, Harrison, High Point, Leschi, Madrona, Mann, Minor and Stevens. There were 42 elementary schools with no Negro children at all. Relatively, Horace Mann school showed the highest degree of racial segregation with 471, or 79.3 per cent Negro. Numerically, T. T. Minor school ranked first with 539 Negroes out of a total enrollment of 740 children. The elementary schools with 60.0 per cent or more of the children classified as Negro were Horace Mann (79.3), Harrison (75.6), T. T. Minor (72.8), Leschi (66.8) and Madrona (62.9).

Among the 14 junior high schools in the city of Seattle, over 87 per cent of the Negro children were registered in two — George Washington and Edmond S. Meany. There were nine junior high schools with three or less Negro children. At George Washington Junior High School 48.2 per cent were Negro and at Edmond S. Meany, 27.5 per cent.

By far the highest degree of racial segregation among the nine senior high schools was observed at Garfield, where 33.9 per cent of the pupils were Negro and 18.1 per cent Japanese, Chinese and "all other." White children actually were in the minority at Garfield, with 48.1 per cent of the total enrollment. One high school, Ballard, had no Negro pupils. In three of the nine high schools, there were four or less Negro students -- Roosevelt had one, Lincoln three, and Queen Anne four. The remaining four high schools had Negro enrollments ranging from 8 to 63.

Japanese Pupils. Figure 8:11 displays the distribution of Japanese students in the 86 elementary schools throughout the city of Seattle. Bailey Gatzert had 249 Japanese, which was 24.0 per cent of its total enrollment. It was followed by Beacon Hill with 167, or 17.4 per cent. There were 21 elementary schools with no Japanese children at all. The remainder had proportions of Japanese pupils which ranged from .1 per cent to 8.7 per cent.

Among the 14 junior high schools in Seattle, over 71 per cent of the 322 Japanese pupils were registered in two — George Washington and Asa Mercer. At George Washington Junior High School, 160, or 21.2 per cent of the total enrollment were Japanese and at Asa Mercer, 70, or 6.4 per cent. The next highest proportion of Japanese students among the twelve remaining junior high schools was 3.3 per cent, at Edmond S. Meany. With the exception of James Monroe Junior High School, which had no Japanese students at all, the other schools reported that the Japanese students constituted around one per cent of the total enrollment. (Figure 8:12)

The highest proportion of Japanese students in senior high school occurred at Garfield with 148, or 10.7 per cent. Franklin Senior High School ranked second with 60, or 3.1 per cent. Ballard and Lincoln High Schools had no Japanese pupils, while Sealth, West Seattle and Roosevelt High Schools reported one, three and four Japanese pupils, respectively. The

---

[1] It will be observed that, because of territorial annexations to the city of Seattle in recent years, the maps portraying the several series of school enrollment statistics for 1957 comprise a considerably larger area than the population maps for 1950 and earlier.

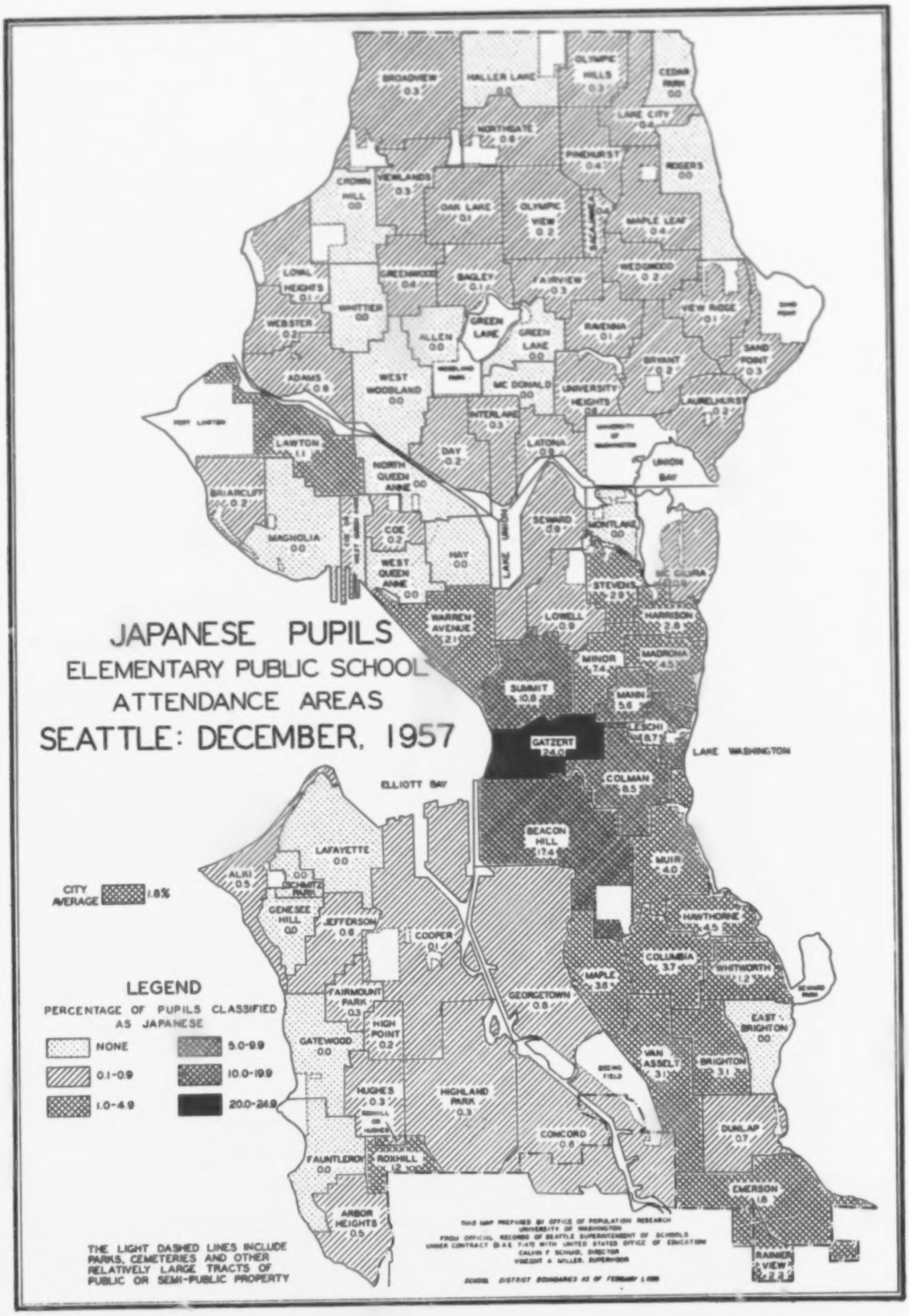

JAPANESE PUPILS
ELEMENTARY PUBLIC SCHOOL
ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
BROADVIEW 0.3
HALLER LAKE 0.0
OLYMPIC HILLS 0.3
CEDAR PARK 0.0
LAKE CITY 0.4
NORTHGATE 0.8
PINEHURST 0.4
ROGERS 0.0
CROWN HILL 0.0
VIEWLANDS 0.3
OAK LAKE 0.1
OLYMPIC VIEW 0.2
MAPLE LEAF 0.4
LOYAL HEIGHTS 0.1
GREENWOOD 0.4
BAGLEY 0.1
FAIRVIEW 0.3
WEDGWOOD 0.2
WHITTIER 0.0
WEBSTER 0.2
ALLEN 0.0
GREEN LAKE
GREEN LAKE 0.0
RAVENNA 0.1
VIEW RIDGE 0.1
SAND POINT 0.3
ADAMS 0.6
WEST WOODLAND 0.0
MC DONALD 0.0
UNIVERSITY HEIGHTS 0.6
BRYANT 0.2
LAURELHURST 0.2
FORT LAWTON
LAWTON 1.1
INTERLAKE 0.3
DAY 0.2
LATONA 0.9
UNIVERSITY OF WASHINGTON
UNION BAY
NORTH QUEEN ANNE 0.0
BRIARCLIFF 0.2
MAGNOLIA 0.0
COE 0.2
WEST QUEEN ANNE 0.0
HAY 0.0
LAKE UNION
SEWARD 0.9
MONTLAKE 0.0
MC GILVRA 0.9
STEVENS 2.9
WARREN AVENUE 2.1
LOWELL 0.9
HARRISON 2.8
MINOR 7.4
MADRONA 4.5
SUMMIT 10.8
MANN 5.6
LESCHI 8.7
GATZERT 24.0
LAKE WASHINGTON
ELLIOTT BAY
COLMAN 8.5
BEACON HILL 17.4
LAFAYETTE 0.0
ALKI 0.5
0.0 SCHMITZ PARK
GENESEE HILL 0.0
JEFFERSON 0.6
COOPER 0.1
MUIR 4.0
HAWTHORNE 4.5
COLUMBIA 3.7
WHITWORTH 1.2
SEWARD PARK
MAPLE 3.6
GEORGETOWN 0.8
FAIRMOUNT PARK 0.3
HIGH POINT 0.2
GATEWOOD 0.0
EAST BRIGHTON 0.0
BOEING FIELD
VAN ASSELT 3.1
BRIGHTON 3.1
HUGHES 0.3
ROXHILL OR HUGHES
HIGHLAND PARK 0.3
CONCORD 0.6
DUNLAP 0.7
FAUNTLEROY 0.0
ROXHILL 1.2
EMERSON 1.8
ARBOR HEIGHTS 0.5
RAINIER VIEW 2.2
CITY AVERAGE 1.8%
LEGEND
PERCENTAGE OF PUPILS CLASSIFIED AS JAPANESE
NONE
0.1-0.9
1.0-4.9
5.0-9.9
10.0-19.9
20.0-24.9
THE LIGHT DASHED LINES INCLUDE PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
CALVIN F SCHMID, DIRECTOR
VINCENT A MILLER, SUPERVISOR

Figure 8:11

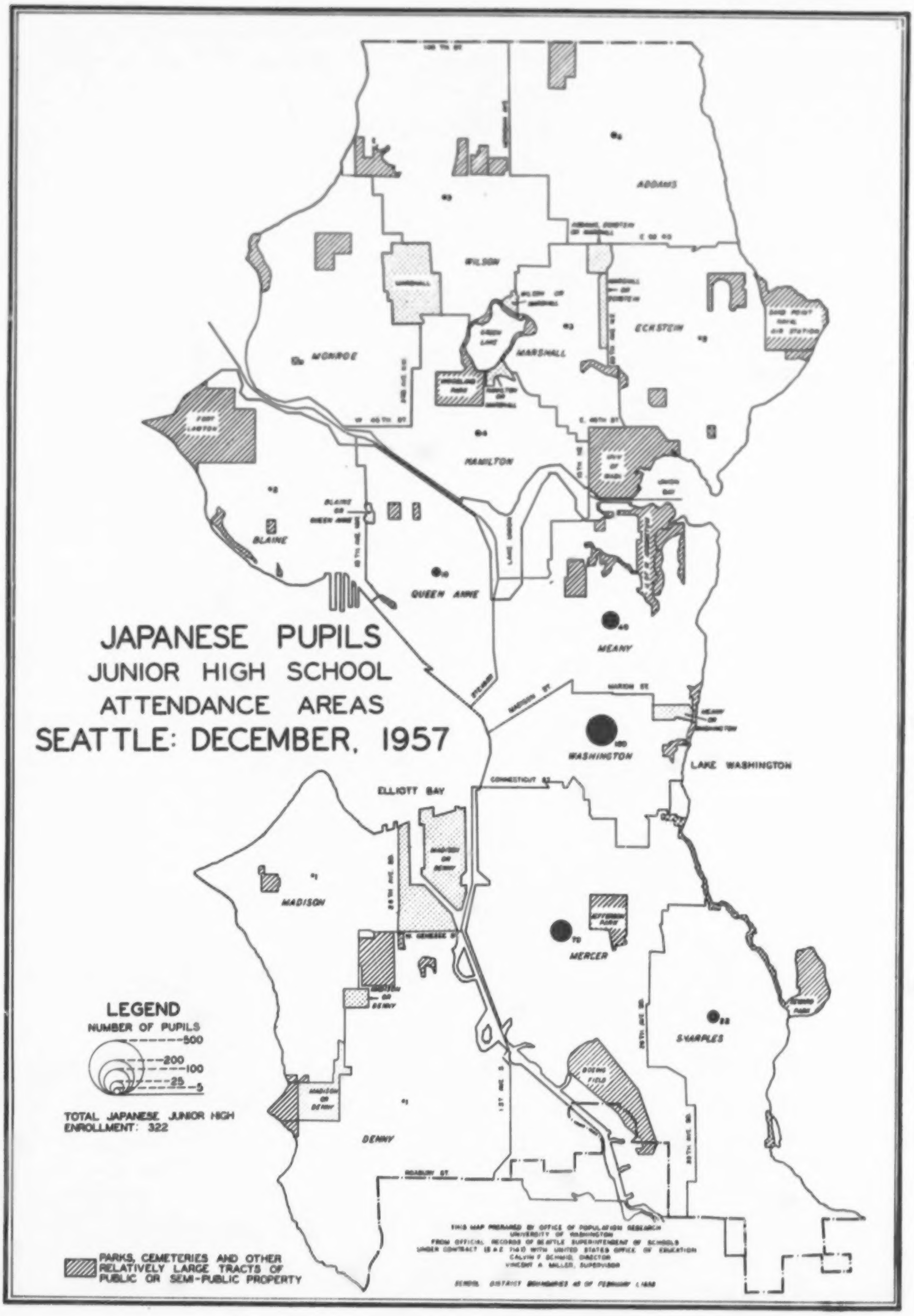

JAPANESE PUPILS
JUNIOR HIGH SCHOOL
ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
ADDAMS
WILSON
MONROE
ECKSTEIN
MARSHALL
HAMILTON
BLAINE
QUEEN ANNE
MEANY
40
WASHINGTON
MERCER
70
SHARPLES
MADISON
DENNY
ELLIOTT BAY
LAKE WASHINGTON
MARION ST
MADISON ST
CONNECTICUT ST
ROXBURY ST
LEGEND
NUMBER OF PUPILS
500
200
100
25
5
TOTAL JAPANESE JUNIOR HIGH ENROLLMENT: 322
PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
UNDER CONTRACT WITH UNITED STATES OFFICE OF EDUCATION
CALVIN F SCHMID, DIRECTOR
VINCENT A MILLER, SUPERVISOR
SCHOOL DISTRICT BOUNDARIES AS OF FEBRUARY

Figure 8:12

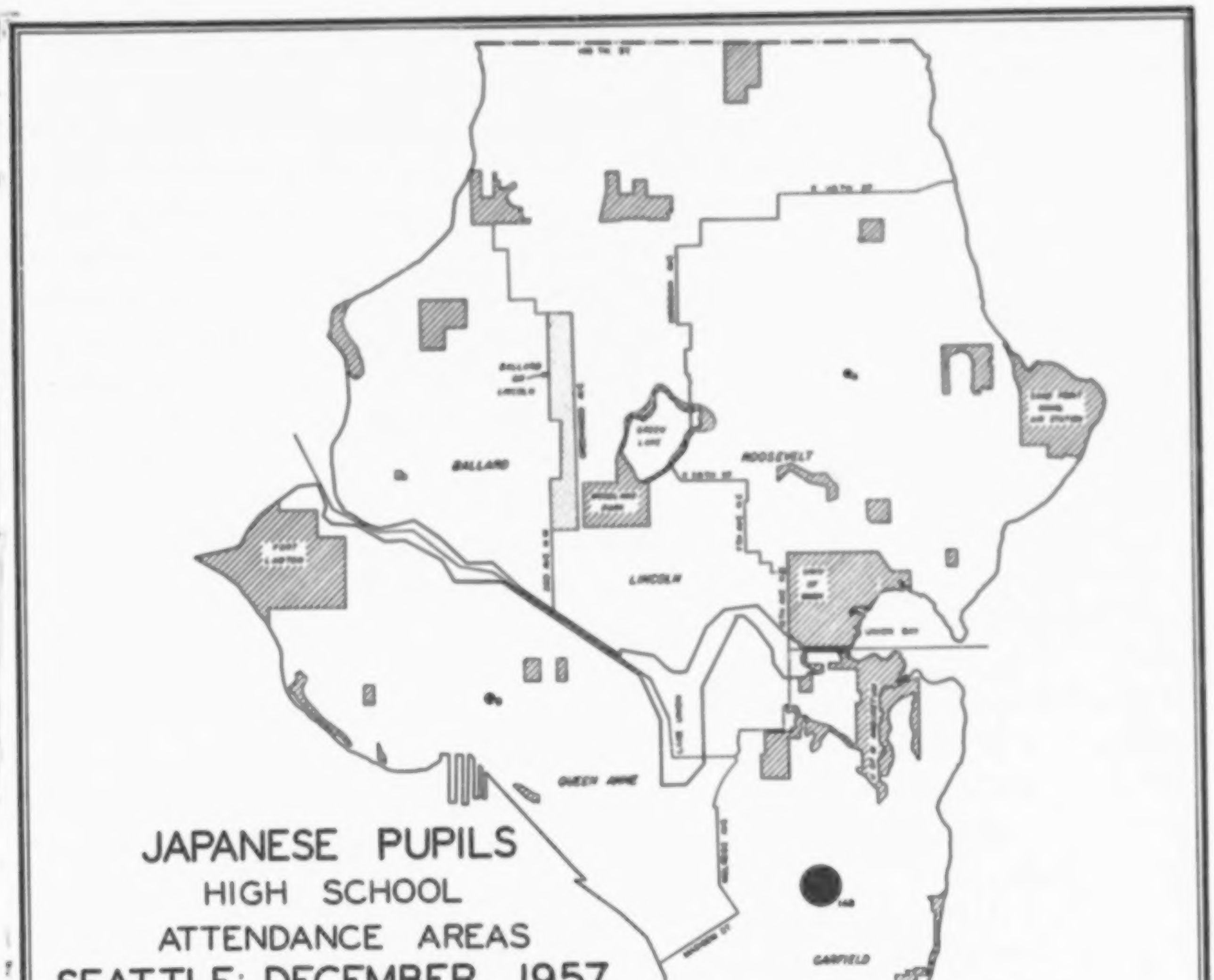

JAPANESE PUPILS
HIGH SCHOOL
ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
LEGEND
NUMBER OF PUPILS
500
200
100
25
5
TOTAL JAPANESE HIGH SCHOOL ENROLLMENT: 253
PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY
BALLARD
BALLARD OR LINCOLN
GREEN LAKE
ROOSEVELT
LINCOLN
UNION BAY
FORT LAWTON
QUEEN ANNE
GARFIELD
148
LAKE WASHINGTON
ELLIOTT BAY
CONNECTICUT ST
DEARBORN ST
WEST SEATTLE
W SEATTLE OR SEALTH
CLEVELAND OR FRANKLIN
FRANKLIN
CLEVELAND
BOEING FIELD
SEALTH
ROXBURY ST
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
WITH UNITED STATES OFFICE OF EDUCATION
CALVIN F SCHMID, DIRECTOR
VINCENT A MILLER SUPERVISOR
SCHOOL DISTRICT BOUNDARIES AS OF FEBRUARY

Figure 8:13

remaining high school, Cleveland, reported that 28 students were classified as Japanese. (Figure 8:13)

Chinese Pupils. The distribution of Chinese pupils in the three types of schools is very similar to that of the Japanese. A large proportion (49 per cent) of the 600 Chinese in the elementary schools throughout the city of Seattle was enrolled at Beacon Hill and Bailey Gatzert schools. There were 38 schools with no Chinese children at all. The remainder of the Chinese pupils were dispersed in small proportions in 46 schools. In junior high schools, 68 out of the 84 Chinese pupils were enrolled at George Washington and Asa Mercer schools. Seven junior high schools had no Chinese pupils at all, and the remaining five junior high schools reported that the Chinese constituted less than one per cent of their enrollment. Among the senior high schools, Garfield and Franklin had 96, or 80.0 per cent, of the Chinese pupils.

All Non-White Pupils. In summarizing the discussion concerning the spatial distribution of ethnic groups, it is notable that non-white pupils constituted 10.7 per cent of the enrollment in the elementary schools. The majority of these, 3,729, or 58.9 per cent, were enrolled in only seven of the 86 elementary schools in the city. There were six elementary schools without any non-white children, while 42 schools reported that 10 or less of their students were classified as non-white. The proportions of non-white children in the most highly segregated elementary schools were 92.3 per cent in Horace Mann, 86.2 in T. T. Minor, 81.7 in Gatzert, 81.5 in Harrison, 80.4 in Leschi, 79.6 in Colman and 70.4 in Madrona. (Figure 8:14)

The distribution of non-white pupils in the junior and senior high schools is depicted in Figures 8:15 and 8:16. It will be observed that their proportions of the total enrollment at George Washington and Edmond S. Meany schools are 79.0 per cent and 31.9 per cent, respectively. These two schools included 71.5 per cent of all the non-white enrollment in junior high schools. Finally, among the nine high schools, Garfield ranked first in the proportion of non-white pupils. Of the 1,388 students enrolled at Garfield, 721, or 51.9 per cent, were non-white. The remainder of the high schools had relatively small proportions of non-white students, ranging from .2 per cent in Ballard to 9.9 per cent in Franklin.

TEACHING STAFF BY ETHNIC BACKGROUND AND TYPE OF SCHOOL

In addition to data on ethnic patterning of students in school attendance areas, information concerning the distribution of teaching staff was also obtained. Of the 3,088 public school teachers enumerated in the Seattle District, 2,971 (96.2 per cent) were classified as Caucasian; 68 (2.2 per cent), Negro; 34 (1.1 per cent), Japanese; 5 (.2 per cent), Chinese; and 10 (.3 per cent), "all other." In elementary schools there were 1,798 teachers, or one teacher per 32.8 pupils; in junior high schools, 699, or one per 25.5 pupils; and in senior high schools, 591, or one per 26.3 pupils. The average for the whole district was one teacher per 29.9 pupils.

Of the 1,798 elementary school teachers, 1,717 (95.5 per cent) were white; 49 (2.7

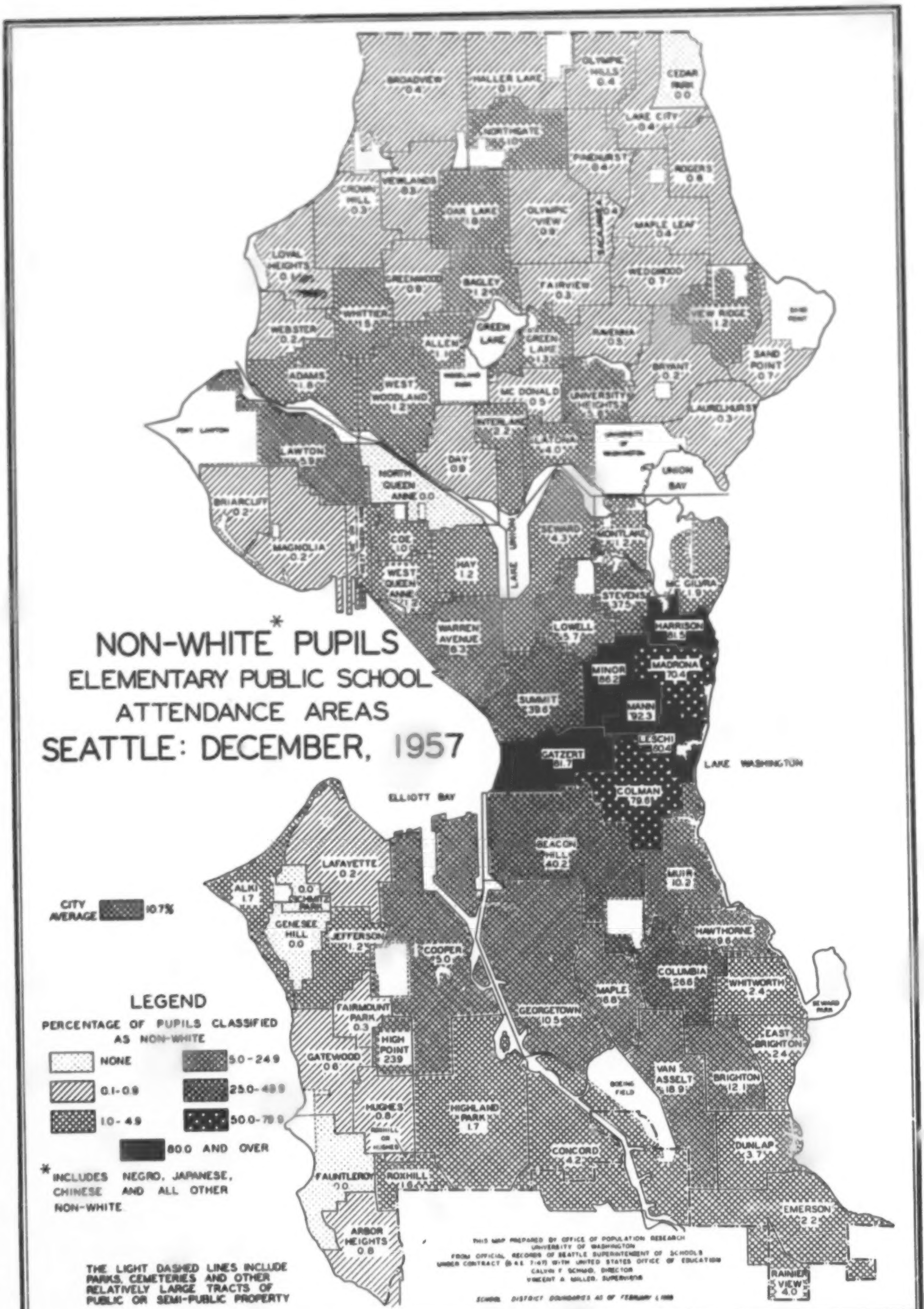

NON-WHITE* PUPILS
ELEMENTARY PUBLIC SCHOOL ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
BROADVIEW 0.4
HALLER LAKE 0.1
OLYMPIC HILLS 0.4
CEDAR PARK 0.0
LAKE CITY 0.4
NORTHGATE
PINEHURST 0.4
ROGERS 0.8
VIEWLANDS 0.3
CROWN HILL 0.3
OAK LAKE 1.8
OLYMPIC VIEW 0.9
SACAJAWEA 0.4
MAPLE LEAF 0.4
LOYAL HEIGHTS 0.1
GREENWOOD 0.9
BAGLEY 1.2
FAIRVIEW 0.3
WEDGWOOD 0.7
VIEW RIDGE 1.2
SAND POINT
WHITTIER 1.5
WEBSTER 0.2
GREEN LAKE
ALLEN 1.1
GREEN LAKE 1.3
RAVENNA 0.5
SAND POINT 0.7
ADAMS 1.8
WEST WOODLAND 1.2
WOODLAND PARK
MC DONALD 0.5
UNIVERSITY HEIGHTS
BRYANT 0.2
LAURELHURST 0.3
FORT LAWTON
INTERLAKE 2.2
LATONA 4.0
UNIVERSITY OF WASHINGTON
UNION BAY
LAWTON 5.9
DAY 0.9
NORTH QUEEN ANNE 0.0
BRIARCLIFF 0.2
MAGNOLIA 0.2
COE 1.0
WEST QUEEN ANNE 1.7
HAY 1.2
LAKE UNION
SEWARD 4.3
MONTLAKE 1.2
MC GILVRA 1.9
STEVENS 37.5
HARRISON 81.5
WARREN AVENUE 6.3
LOWELL 5.7
MINOR 86.2
MADRONA 70.4
SUMMIT 39.6
MANN 92.3
LESCHI 60.4
GATZERT 81.7
LAKE WASHINGTON
COLMAN 79.6
ELLIOTT BAY
BEACON HILL 40.2
LAFAYETTE 0.2
MUIR 10.2
ALKI 1.7
0.0 SCHMITZ PARK
CITY AVERAGE 10.7%
GENESEE HILL 0.0
JEFFERSON 1.2
COOPER 5.0
HAWTHORNE 9.6
COLUMBIA 26.6
WHITWORTH 2.4
MAPLE 6.8
SEWARD PARK
LEGEND
PERCENTAGE OF PUPILS CLASSIFIED AS NON-WHITE
FAIRMOUNT PARK 0.3
GEORGETOWN 10.5
EAST BRIGHTON 2.4
HIGH POINT 23.9
NONE
5.0-24.9
GATEWOOD 0.6
BOEING FIELD
VAN ASSELT 18.9
BRIGHTON 12.1
0.1-0.9
25.0-49.9
1.0-4.9
50.0-79.9
HUGHES 0.8
HIGHLAND PARK 1.7
ROXHILL OR HUGHES
80.0 AND OVER
CONCORD 4.2
DUNLAP 3.7
* INCLUDES NEGRO, JAPANESE, CHINESE AND ALL OTHER NON-WHITE
FAUNTLEROY 0.0
ROXHILL 1.6
EMERSON 2.2
ARBOR HEIGHTS 0.8
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
UNDER CONTRACT WITH UNITED STATES OFFICE OF EDUCATION
CALVIN F. SCHMID, DIRECTOR
VINCENT A. MILLER, SUPERVISOR
THE LIGHT DASHED LINES INCLUDE PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY
SCHOOL DISTRICT BOUNDARIES AS OF FEBRUARY
RAINIER VIEW 4.0

Figure 8:14

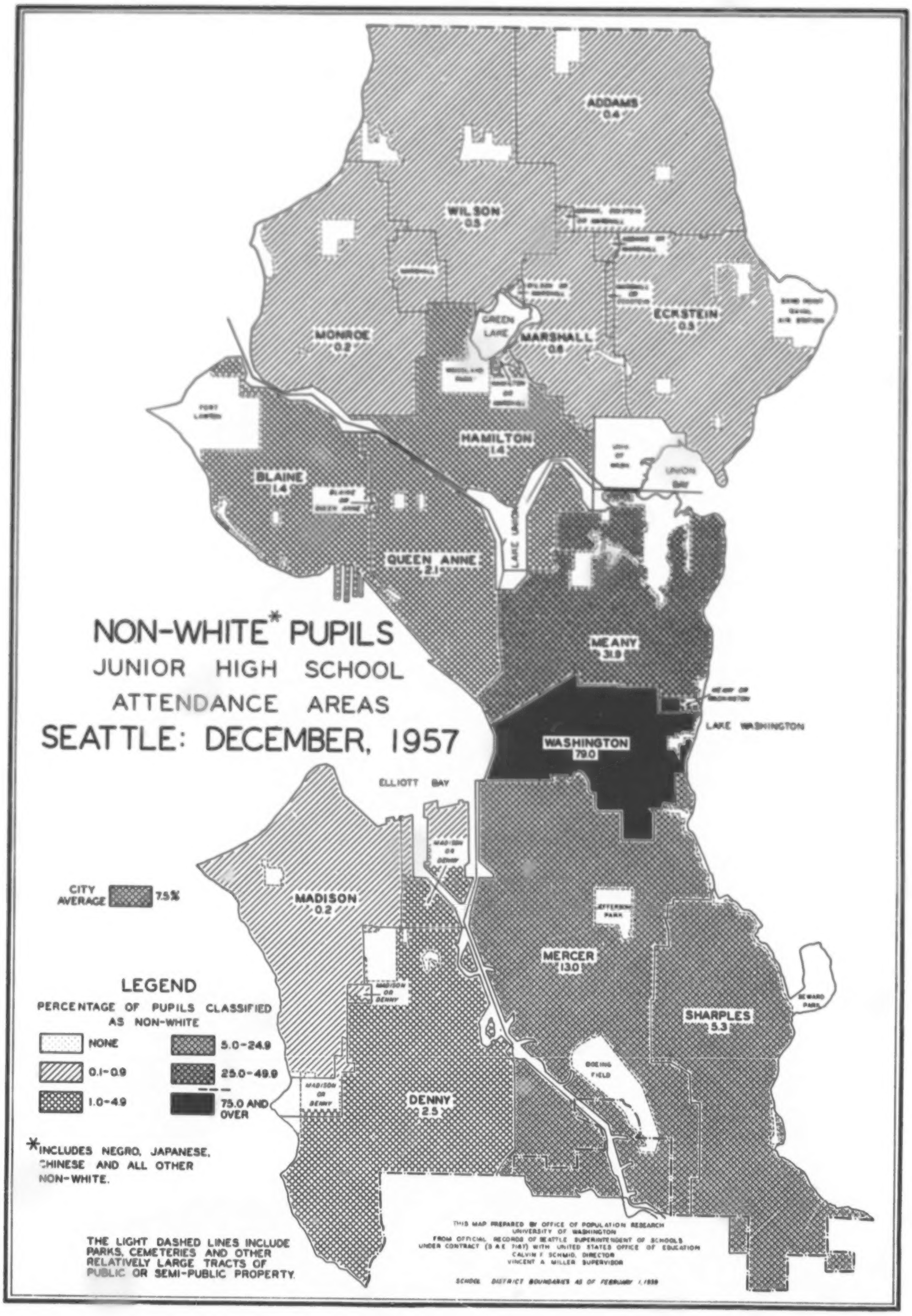

NON-WHITE* PUPILS
JUNIOR HIGH SCHOOL
ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
ADDAMS
0.4
WILSON
0.5
MONROE
0.2
GREEN LAKE
MARSHALL
0.8
ECKSTEIN
0.5
FORT LAWTON
HAMILTON
1.4
UNION BAY
BLAINE
1.4
QUEEN ANNE
2.1
LAKE UNION
MEANY
31.8
LAKE WASHINGTON
WASHINGTON
79.0
ELLIOTT BAY
CITY AVERAGE
7.5%
MADISON
0.2
MADISON OR DENNY
JEFFERSON PARK
MERCER
13.0
SEWARD PARK
SHARPLES
5.3
BOEING FIELD
DENNY
2.5
LEGEND
PERCENTAGE OF PUPILS CLASSIFIED AS NON-WHITE
NONE
0.1-0.9
1.0-4.9
5.0-24.9
25.0-49.9
75.0 AND OVER
*INCLUDES NEGRO, JAPANESE, CHINESE AND ALL OTHER NON-WHITE.
THE LIGHT DASHED LINES INCLUDE PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY.
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
UNDER CONTRACT (S A E 7167) WITH UNITED STATES OFFICE OF EDUCATION
CALVIN F SCHMID, DIRECTOR
VINCENT A MILLER SUPERVISOR
SCHOOL DISTRICT BOUNDARIES AS OF FEBRUARY 1,1958

Figure 8:15

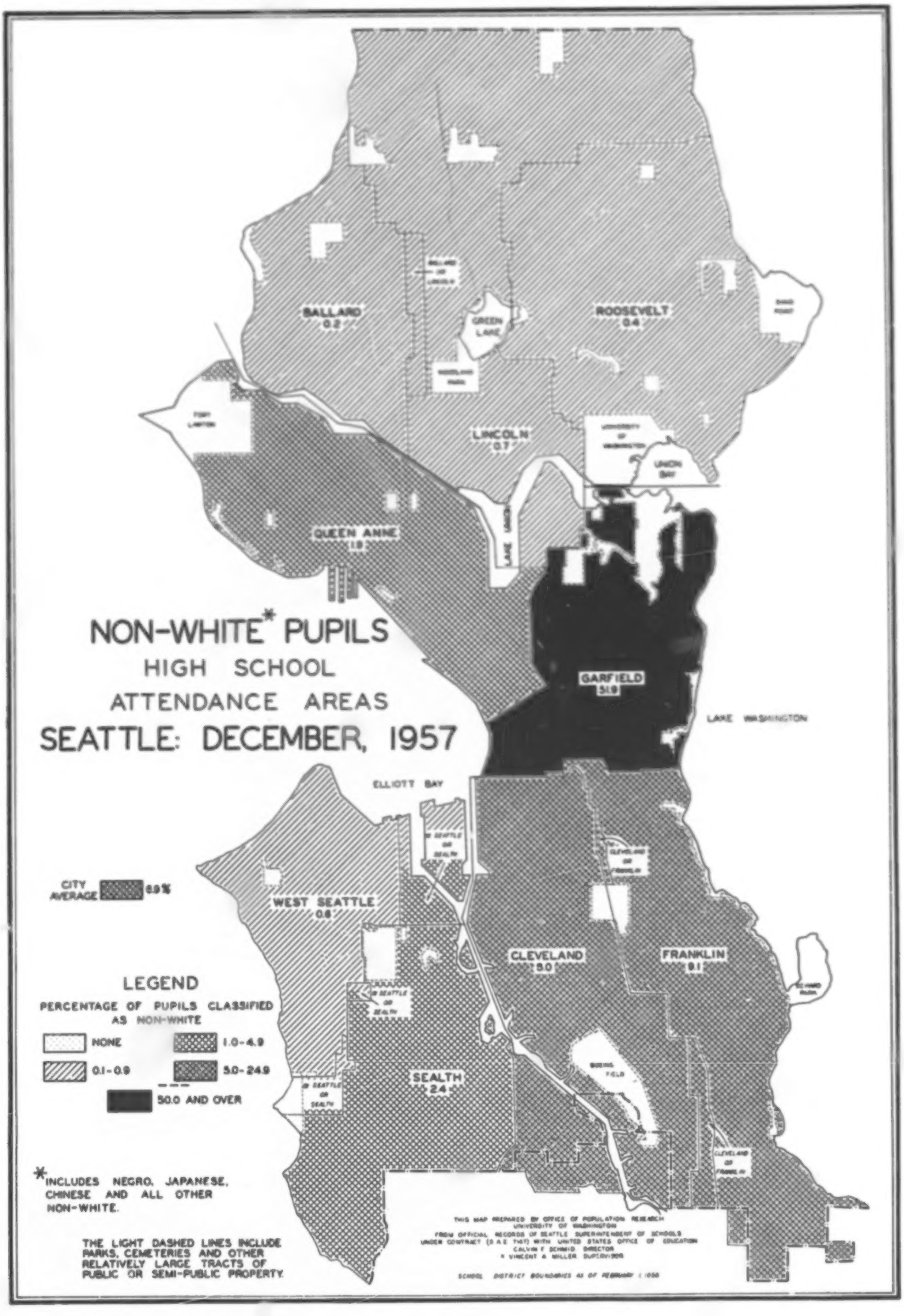

NON-WHITE* PUPILS
HIGH SCHOOL
ATTENDANCE AREAS
SEATTLE: DECEMBER, 1957
BALLARD
0.2
BALLARD OR LINCOLN
GREEN LAKE
WOODLAND PARK
ROOSEVELT
0.4
SAND POINT
FORT LAWTON
LINCOLN
0.7
UNIVERSITY OF WASHINGTON
UNION BAY
LAKE UNION
QUEEN ANNE
1.9
GARFIELD
51.9
LAKE WASHINGTON
ELLIOTT BAY
W SEATTLE OR SEALTH
CLEVELAND OR FRANKLIN
CITY AVERAGE 6.9%
WEST SEATTLE
0.6
CLEVELAND
5.0
FRANKLIN
9.1
SEWARD PARK
BOEING FIELD
SEALTH
2.4
LEGEND
PERCENTAGE OF PUPILS CLASSIFIED AS NON-WHITE
NONE
0.1-0.9
1.0-4.9
5.0-24.9
50.0 AND OVER
*INCLUDES NEGRO, JAPANESE, CHINESE AND ALL OTHER NON-WHITE.
THE LIGHT DASHED LINES INCLUDE PARKS, CEMETERIES AND OTHER RELATIVELY LARGE TRACTS OF PUBLIC OR SEMI-PUBLIC PROPERTY.
THIS MAP PREPARED BY OFFICE OF POPULATION RESEARCH
UNIVERSITY OF WASHINGTON
FROM OFFICIAL RECORDS OF SEATTLE SUPERINTENDENT OF SCHOOLS
UNDER CONTRACT (S A E 7167) WITH UNITED STATES OFFICE OF EDUCATION
CALVIN F SCHMID DIRECTOR
VINCENT A MILLER SUPERVISOR
SCHOOL DISTRICT BOUNDARIES AS OF FEBRUARY 1 1958

Figure 8:16

per cent), Negro; 21 (1.2 per cent), Japanese; 5 (.3 per cent), Chinese; and 6 (.3 per cent), "all other." The 81 non-white teachers were distributed among 42 elementary schools. Compared to the distribution of non-white pupils, the distribution of non-white teachers indicates a much wider dispersion in the school system.

This fact also holds true for junior and senior high schools. Of the 699 junior high school teachers, 673 (96.3 per cent) were white; 14 (2.0 per cent), Negro; eight (1.1 per cent), Japanese; and four (.6 per cent), "all other." The 26 non-white teachers were distributed among 12 of the 14 junior high schools in the city of Seattle. Finally, of the 591 senior high school teachers, five were Negro and five were Japanese; they were distributed among six of the nine senior high schools in the city.

SURVEY AND EVALUATION OF PROBLEMS
ELEMENTARY SCHOOLS IN CENTRAL AREA OF CITY

In view of the heavy influx of Negroes to the city of Seattle in recent years, an effort was made to study their impact on the public schools. Consideration also was given to the relationship of Negroes to other minority racial groups as well as to the dominant white group. Because of the pronounced segregation of minority racial groups in the city, the locus of most of the problems was to be found in the central area. Accordingly, the schools in this part of the city were selected for special consideration.

All of the principals, plus an average of two teachers, from each of the schools in the central area were interviewed in order to ascertain their attitudes, opinions and observations concerning the major problems confronting the schools. A total of thirty persons were included in the survey. A detailed, pretested schedule of the unstructured type was used in the interviewing procedure.[2] The various categories to which the responses were fitted were established by a content analysis of over half of the schedules.

Major Problems. The most frequently mentioned problems were related to discipline and behavior, and to the unconcern of a large proportion of the pupils for school work. Teachers also faced other problems, such as differences in values among the various ethnic groups, unfavorable family background and physical health. Other problems less frequently mentioned included overcrowded classrooms, high pupil turnover, insecurity of many children and wide range of abilities among the children, especially where the mentally retarded pupils frequently are in the same classroom with children of normal mentality.

According to the majority of the teachers, there was no evidence pointing to the existence of problems resulting directly from the mixing of various racial groups in the schools. The following responses are illustrative of this opinion:

> "Children are basically unprejudiced, and if they change, it would be due to outside influences."

---

[2] It should be made clear that the data presented in the following pages represent evaluations and experiences of the teachers and principals included in the sample. In order to convey as precisely as possible the ideas expressed by the interviewees, the original phraseology of the responses was retained wherever appropriate.

"There are no problems of this kind at the elementary level."

The remaining teachers (about 15 per cent), while confirming the relative absence of interracial problems, mentioned such specific problems as name calling, or lack of friends between white and Negro pupils in predominantly Negro schools. In a few instances, teachers stated that parents had complained of minor problems growing out of race differences.

In response to the question, "Do you think that similar conditions exist in other Seattle schools?" about 35 per cent contended that probably there was no difference, approximately 25 per cent indicated they did not know, a few felt that other schools had more problems of this kind, while the remainder believed that conditions would be the same in all crowded, transient areas where children are of different racial background and of low socio-economic status.

In the comparatively few instances in which foreign-born children were enrolled, the major, and practically the only, problem pertained to language difficulties.

As for children of recent inmigrants, reference was made in almost all instances to the southern Negro. Their problems were not unlike those of other pupils, but they were much more freqeunt and in more accentuated form. A special problem of particular interest and significance is the confusion these children experience as a consequence of attaining complete freedom in the North. One respondent said,

> "With respect to Negro migrants from the South, problems arise from their sudden possession of complete independence here. What takes place in their homes is reflected in their behavior at school, and parents do not realize that this might lead their children to run wild."

The teachers believe that serious adjustment problems of Negro inmigrant children may also be due in part to feelings of isolation, ineffectiveness of parental control, low socio-economic status and a "persecution complex." In addition, they believed that the entire way of life in the North is considerably different from what these Negro inmigrants had been accustomed to in the South.

Quality of School Work and School Standards. About 40 per cent of the respondents said that, in general, Oriental children were the best pupils, while approximately 35 per cent reported that Negroes were the poorest. A relatively small proportion stated that Caucasian pupils were the best. Most of the remaining respondents believed that all were basically similar in the quality of their performance, and that race was not a determining factor.

When teachers were asked whether or not they observed any difference in educational standards between mixed and non-mixed schools, about 35 per cent asserted that there were no differences, and approximately 15 per cent were uncertain. One-half of the teachers answered the question affirmatively, with the assertion that standards were lower in mixed schools. Several reasons were adduced for these differences: (1) poor educational background of many pupils, (2) lack of emphasis in the home on educational values, (3) high mobility among pupils, (4) emotional problems of children frequently growing out of the socio-economic insecurity of their parents and (5) diversion of a considerable portion of teachers' time and energy to disciplinary and adjustment problems of children, rather than to classroom instruction and the achievement of high educational standards.

Characteristics of Pupils by Ethnic Background. Over one-third of the respondents stated that Negroes, on the whole, represent a disciplinary problem in the schools. Another one-third of the principals and teachers expressed the opinion that Negro pupils are temperamental, show little self-control and are less amenable to school discipline than members of other ethnic groups. Some 15 per cent of the teaching staff indicated that Negroes have manifested the following characteristics: poor classroom performance, health problems, physical problems of cleanliness and appearance, use of obscene language and generally low socio-economic status. Less frequently mentioned characteristics were identical with those cited at the beginning of this discussion. Respondents commented on the Negroes' unfavorable background, lack of responsibility, unhealthy family ties and emotional insecurity.

Additional comments expressed the belief that the major causal factor was home background and not race per se. One of the principals stated that "deviants from the norm occur in every ethnic group, and it would be difficult to characterize any of the groups with specific racial traits."

One of the teachers stated that some of the white children showed signs of overprotection. Another mentioned that white children sometimes assumed an attitude of superiority. One principal indicated that parents of white pupils showed more concern about their children than did other parents. It was the contention of several teachers that white children of low socio-economic status were much like Negro children of comparable background. Approximately one-fourth of the respondents claimed that the white children could not be characterized in terms of specific traits or problems.

Although some of the teachers referred to the Japanese and Chinese as two distinct groups, most of them (over 90 per cent) lumped the two groups together under the label, Oriental. Approximately 85 per cent of the interviewees affirmed the stability of pupils of Oriental background and attributed it to their home life. They stated that these pupils have a good sense of values and are industrious, conscientious and highly motivated. A few teachers indicated concern over instances of parental domination so repressive that the children were too shy to speak in class or to be creative or imaginative in their work. One teacher reported a case of cheating by an Oriental child who apparently was motivated by family pressure to obtain good grades.

Participation of Parents in Parent-Teacher Associations. About one-third of the respondents reported that parents, regardless of ethnic background, are equally interested in school activities and in the PTA. On the other hand, a few teachers felt that all parents generally lacked sufficient interest in the school and in PTA activities. About one-fourth of the interviewees expressed the opinion that Orientals manifested the greatest interest in the PTA, although a much smaller percentage felt that Caucasian parents were more interested.

Generally, the respondents felt that there should be much greater parental interest shown in school and PTA activities. More comments of this nature were related to the general disconcern of Negro parents. In virtually every case, however, some qualifying explanation or excuse followed the comment. The teachers would state that both parents were employed, that they did not have time to participate, or that the mother was saddled with too many home responsibilities.

Negroes of relatively high occupational status were exceptions, since they showed a great deal of interest in their children and in school. Children of this group, and for that matter, children of interested parents generally, were the 'best' pupils at school. With the limited amount of information available, it is difficult to establish a causal relationship between the amount of parental interest and the quality of the child's performance in school.

Teacher Turnover. Approximately one-third of the teaching staff, representing five different schools, reported a high rate of teacher turnover in their schools. With the exception of a small proportion indicating inadequate knowledge of the problem, the remainder felt that the amount of turnover at their respective schools was not unusual.

The major factors in teacher turnover were listed as follows: pressure from the principal; complaints from the community, particularly parents; difficulties arising from disciplinary problems; transportation problems; and desire to obtain experience in other types of areas. Less frequently mentioned reasons included: increase in the number of Negroes; retirement; resignation; low morale among teachers; poor facilities; and maternity and marriage.

RECOMMENDATIONS FOR ALLEVIATING PROBLEMS

In order to reduce or eliminate the many problems indicated by our sample of respondents from mixed schools, a number of suggestions was advanced. Approximately 70 per cent of the teaching staff recommended a reduction in class load. It was maintained that the size of most classes was too large for the teacher to do an effective job. About one-fourth of the respondents suggested improvements in physical facilities such as larger grounds, more portables to meet increasing enrollments and, in some cases, that a new building was needed. A similar proportion of teachers recommended an extension of counseling services as an important aid in their work. Approximately 15 per cent of the respondents believed that a special incentive in the form of extra pay should be offered to teachers with exceptional qualifications and also for accepting assignments in mixed schools.

Other suggestions presented by an average of two or three teachers were:

a) Establish more remedial schools.

b) Modify the curriculum and render it more flexible to meet the special needs of the schools in the central area without reducing standards.

c) Balance the relative ratios of racial groups in the various attendance areas in a way similar to what has been attempted in New York City.

d) Expand the psychological testing program.

e) Provide consultants without the request by teachers who hesitate to call for them for fear of revealing their incapabilities.

f) Make a greater effort to reach the parents and elicit their cooperation.

g) Relieve teachers of extra duties such as luncheon supervision.

h) School officials should pay more attention to transient and rapidly changing areas.

i) There should be more visits by school board members for the purpose of observing conditions, especially in mixed schools.

3

j) Conduct more research relating to school and community problems.
k) Establish evening classes for teachers.
l) Provide teachers with additional security.
m) Observe attendance area regulations closely.

In addition to the above specific recommendations made by teachers, their observations and free comments were assessed. Most of them asked for more cooperation from parents in helping their children, and, to combat parental indifference, suggested that parents be organized into a PTA study program, or that special classes for adults be established.

Housing was frequently cited as the major underlying factor in the heavy concentration of Negroes in certain schools. When Negroes move into a neighborhood, white residents tend to move out, and, slowly but steadily, the district becomes predominantly Negro. To many other respondents, however, the major problem of schools in the central area is intimately related to the pupil's home background and his family's low socio-economic status.

Practically all of the interviewees were convinced that interracial education was working well in Seattle. However, they did not have a favorable reaction to the press. One of them said that "the newspapers produce a great deal of racial problems." Others added that the repercussions of racial problems in the nation at large were felt here, and this made their job in mixed schools more difficult. In this connection, as one teacher expressed it: "when anything concerning racial problems in the South is printed in the newspapers, there are reverberations in the form of varying degrees of tension at school."

SUMMARY

In Seattle, as in all large American cities, the minority racial groups manifest a marked degree of spatial segregation. The basic residential segregation patterning of the Negroes, Japanese and Chinese is reflected in school enrollments in the various attendance areas throughout the city. Supporting data on school enrollments were obtained from an ethnic survey of Seattle public schools conducted in December, 1957.

Because of the pronounced segregation of the three minority groups, the locus of most of the problems was to be found in the central area. Accordingly, the schools in this part of the city were selected for special consideration. All of the principals, plus an average of two teachers, from each of the schools in the central area were interviewed in order to ascertain their attitudes, opinions and observations concerning the major problems confronting the schools. A detailed, pretested schedule of the unstructured type was used in the interviewing procedure. The most frequently mentioned problems were related to discipline and behavior, and to the unconcern of a large proportion of the pupils for school work. Teachers also faced other problems, such as: differences in values among the various ethnic groups, unfavorable family background, physical and emotional health, overcrowded classrooms, high pupil turnover and lack of parental interest.

CHAPTER 9

ECOLOGICAL ANALYSIS OF JUNIOR COLLEGE ENROLLMENT*

The junior college system in the state of Washington is designed to meet the needs of various communities for education beyond the high school. The first junior colleges were established in Centralia, Mount Vernon and Yakima in the middle 1920's. In the 1930's, junior colleges were founded in Aberdeen, Vancouver, Longview and Wenatchee. Two more junior colleges, one in Everett and the other in Bremerton, were established in the early and middle 1940's, respectively. The most recently (1955) opened institution is Columbia Basin Junior College at Pasco. Under existing state law, only two more junior colleges may still be established.[1]

Three of the ten existing junior colleges — Columbia Basin, Wenatchee Valley and Yakima Valley — are situated east of the Cascade Mountains, where approximately 30 per cent of the population of Washington live. The remaining junior colleges are located west of the mountains in the more populous section of the state.

Administrators have contended that the junior college system serves local areas drawing mainly from populations in the vicinity of the college. To what extent do the junior colleges in Washington realize this? From where do they draw high school graduates? What is the contribution of local and contiguous counties to enrollment in these institutions? And, what is the contribution of non-contiguous areas to enrollment in junior colleges?

The focus of this chapter is an ecological analysis of enrollment in the ten junior colleges — an inquiry into the sources, as determined by high school of graduation, of students who go to these colleges, based on data reported for students enrolled on the first school day in October, 1958. A study of commuting areas is not intended, although this problem is considered, at least by implication.

GENERAL CHARACTERISTICS OF JUNIOR COLLEGE ENROLLMENT

This study deals with "full-time students" only, defined as those registered for 12 or more credits in "academic-transfer" courses. Academic-transfer courses are designed to

---

*Prepared in collaboration with Baha Abu-Laban, research assistant, Office of Population Research and Washington State Census Board.

[1] New institutions are in the process of being organized at Moses Lake and Port Angeles. Also, in view of the anticipated upsurge in college and university enrollment, the Legislature in all likelihood will permit junior colleges to be established in counties where they are now prohibited. According to present statute, the following counties are not permitted to have junior colleges, since they already have institutions which offer courses above high school grades: King, Kittitas, Pierce, Spokane, Thurston, Walla Walla, Whatcom and Whitman.

TABLE 9:I

ENROLLMENT IN WASHINGTON JUNIOR COLLEGES BY COUNTY OF HIGH SCHOOL OF GRADUATION: OCTOBER, 1958

County	College										
	Total	Centralia	Clark	Columbia	Everett	Grays Harb.	Lower Col.	Olympic	Skagit	Wenatchee	Yakima
Total	6,075	361	665	596	1,225	523	399	778	326	391	811
Adams	4	...	...	...	...	...	...	1	...	3	...
Asotin	...	...	...	...	...	...	...	...	...	...	...
Benton	401	...	...	382	1	...	1	...	1	...	16
Chelan*	193	...	2	2	1	...	...	1	1	183	3
Clallam	36	1	...	...	4	3	1	25	1	...	1
Clark*	463	1	438	...	1	...	8	4	...	1	10
Columbia	2	...	...	2	...	...	...	...	...	...	...
Cowlitz*	321	1	5	...	...	...	311	1	1	1	1
Douglas	45	...	...	...	...	...	...	...	...	45	...
Ferry	3	...	...	...	...	...	...	...	...	3	...
Franklin*	120	...	...	119	...	...	...	1	...	...	...
Garfield	8	...	...	8	...	...	...	...	...	...	...
Grant	38	...	...	...	1	...	1	...	1	31	4
Grays Harbor*	399	9	2	...	2	381	...	2	...	...	3
Island	47	...	...	...	35	...	...	...	12	...	...
Jefferson	10	...	...	...	5	...	1	3	1	...	...
King	639	6	3	...	491	7	4	72	11	24	21
Kitsap*	488	...	1	...	5	1	...	479	...	...	2
Kittitas	15	...	1	...	...	...	...	4	...	4	6
Klickitat	30	...	12	2	2	...	2	...	1	1	10
Lewis*	223	212	2	...	1	1	4	1	...	...	2
Lincoln	9	...	...	...	1	...	...	...	...	8	...
Mason	51	9	...	...	1	9	...	31	1	...	...
Okanogan	41	1	...	...	1	...	...	1	2	34	2
Pacific	91	7	...	...	1	71	6	4	1	1	...
Pend Oreille	1	...	...	...	...	...	...	...	...	1	...
Pierce	90	3	...	1	4	5	1	68	...	3	5
San Juan	9	...	...	...	2	...	...	...	7	...	...
Skagit*	233	...	1	...	13	...	...	2	217	...	...
Skamania	5	...	4	...	...	...	1	...	...	...	...
Snohomish*	569	2	1	...	546	...	...	...	17	2	1
Spokane	51	1	3	14	3	1	...	1	...	17	11
Stevens	1	...	1	...	...	...	...	...	...	...	...
Thurston	99	89	...	...	...	5	...	...	2	1	2
Wahkiakum	14	...	...	...	...	...	14	...	...	...	...
Walla Walla	37	...	...	26	3	...	1	...	1	2	4
Whatcom	29	...	...	...	6	...	...	1	21	1	...
Whitman	12	...	...	5	3	...	...	...	...	3	1
Yakima*	633	...	...	2	4	...	1	5	1	...	620
Other State	576	16	188	33	82	38	42	54	24	17	82
Foreign	39	3	1	...	6	1	...	17	2	5	4

*Junior college located in county.

TABLE 9:II

PER CENT ENROLLED IN EACH JUNIOR COLLEGE BY COUNTY OF HIGH SCHOOL OF GRADUATION: OCTOBER, 1958

(Figures independently rounded)

County	College										
	Total	Centralia	Clark	Columbia	Everett	Grays Harb.	Lower Col.	Olympic	Skagit	Wenatchee	Yakima
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Adams	.1	...	...	...	...	...	...	.1	...	.8	...
Asotin.	...	...	...	...	...	...	...	...	...	...	...
Benton.	6.6	...	...	64.1	.1	...	.3	...	.3	...	2.0
Chelan*	3.2	...	.3	.3	.1	...	...	.1	.3	46.8	.4
Clallam	.6	.3	...	...	.3	.6	.3	3.2	.3	...	.1
Clark*.	7.6	.3	65.9	...	.1	...	2.0	.5	...	.3	1.2
Columbia	**	...	...	.3	...	...	...	...	...	...	...
Cowlitz*.	5.3	.3	.8	...	...	...	77.9	.1	.3	.3	.1
Douglas	.7	...	...	...	...	...	...	...	...	11.5	...
Ferry	**	...	...	...	...	...	...	...	...	.8	...
Franklin*	2.0	...	...	20.0	...	...	...	.1	...	...	...
Garfield	.1	...	...	1.3	...	...	...	...	...	...	...
Grant	.6	...	...	...	.1	...	.3	...	.3	7.9	.5
Grays Harbor* .	6.6	2.5	.3	...	.2	72.8	...	.3	...	...	.4
Island	.8	...	...	...	2.9	...	...	...	3.7	...	...
Jefferson	.2	...	...	...	.4	...	.3	.4	.3	...	...
King.	10.5	1.7	.5	...	40.1	1.3	1.0	9.3	3.4	6.1	2.6
Kitsap*	8.0	...	.2	...	.4	.2	...	61.6	...	...	.2
Kittitas	.2	...	.2	...	...	...	...	.5	...	1.0	.7
Klickitat	.5	...	1.8	.3	.2	...	.5	...	.3	.3	1.2
Lewis*	3.7	58.7	.3	...	.1	.2	1.0	.1	...	...	.2
Lincoln	.1	...	...	...	.1	...	...	...	...	2.0	...
Mason.	.8	2.5	...	...	.1	1.7	...	4.0	.3	...	...
Okanogan	.7	.3	...	...	.1	...	...	.1	.6	8.7	.2
Pacific	1.5	1.9	...	...	.1	13.6	1.5	.5	.3	.3	...
Pend Oreille . .	**	...	...	...	...	...	...	...	...	.3	...
Pierce.	1.5	.8	...	.2	.3	1.0	.3	8.7	...	.8	.6
San Juan	.1	...	...	...	.2	...	...	...	2.1	...	...
Skagit*	3.8	...	.2	...	1.1	...	...	.3	66.6	...	...
Skamania	.1	...	.6	...	...	...	.3	...	...	...	...
Snohomish* . . .	9.4	.6	.2	...	44.6	...	...	...	5.2	.5	.1
Spokane	.8	.3	.5	2.3	.2	.2	...	.1	...	4.3	1.4
Stevens	**	...	.2	...	...	...	...	...	...	...	...
Thurston	1.6	24.7	...	...	...	1.0	...	...	.6	.3	.2
Wahkiakum . . .	.2	...	...	...	...	...	3.5	...	...	...	...
Walla Walla . .	.6	...	...	4.4	.2	...	.3	...	.3	.5	.5
Whatcom	.5	...	...	...	.5	...	...	.1	6.4	.3	...
Whitman	.2	...	...	.8	.2	...	...	...	...	.8	.1
Yakima*.	10.4	...	...	.3	.3	...	.3	.6	.3	...	76.4
Other State . . .	9.5	4.4	28.3	5.5	6.7	7.3	10.5	6.9	7.4	4.3	10.1
Foreign	.6	.8	.2	...	.5	.2	...	2.2	.6	1.3	.5

*Junior college located in county.

**Less than .1 per cent.

permit the student to receive credit toward the baccalaureate degree in most or all of Washington's four-year institutions. The analysis has been confined to this group of students because the concept of "full-time student" is a much more meaningful and precise measure of enrollment than "all students." Furthermore, it makes the junior college enrollment data comparable with data for other institutions of higher learning throughout the state.

In all of the ten colleges, total full-time enrollment, as defined above, was 6,075. Over thirty per cent of the full-time students were graduates of high schools in three counties: 639 (11 per cent) graduated from high schools located in King County; 633 (10 per cent) were from Yakima County; and 569 (9 per cent) were from Snohomish County. There were 576 (10 per cent) from states other than Washington. (Tables 9:I and 9:II)

Of the counties contributing the greatest number of high school graduates to junior college enrollment, neither King nor Benton has a junior college. King County, however, does have several institutions of higher learning, including the University of Washington, Seattle University, Seattle Pacific College, Northwest Bible College, and St. Edward's and St. Thomas' Seminaries. The Richland Center for Graduate Study at Hanford, under the administration of the University of Washington, is the only facility of college grade situated in Benton County.

Table 9:I also shows that Everett Junior College has the largest enrollment (1,225 students). It is followed in size by Yakima Valley Junior College (811), Olympic College (778), Clark College (665), Columbia Basin College (596), Grays Harbor College (523), Lower Columbia Junior College (399), Wenatchee Valley College (391), Centralia Junior College (361) and Skagit Valley Junior College (326).[2]

Examination of the distribution of total full-time junior college enrollment, by institution and by county of high school of graduation reveals that students from states other than Washington amounted to 576, or approximately 10 per cent of the total enrollment of 6,075. When classified by college, Clark College ranks first in proportion of all junior college students from out-of-state with over three per cent; Everett Junior College and Yakima Valley Junior College each had a little over one per cent. Data on the remaining seven junior colleges show that graduates of high schools in other states enrolled in each of these institutions account, respectively, for less than one per cent of the total junior college student body.

The fact that Clark College has such a large proportion of students from outside of Washington is due mainly to its proximity to the state of Oregon. The majority of out-of-state students attending Clark College are graduates of high schools in Oregon. In the fall of 1958, there were 152 students from Oregon — four-fifths of the 188 non-Washington students in Clark College.

Foreign students constituted a very small proportion of enrollment in the ten colleges. Only 39 (.6 per cent) of the 6,075 students attending junior colleges were from foreign countries.

Generally, the counties providing the junior colleges with relatively large percentages

---

[2] Discrepancies between some of these figures and those appearing elsewhere are due to interpretational and reporting errors on the part of individual junior colleges.

TABLE 9:III

JUNIOR COLLEGE ENROLLMENT: OCTOBER, 1958

LOCATION OF HIGH SCHOOL OF GRADUATION

(Figures independently rounded)

Junior College and Location of High School of Graduation	Number	Per Cent	Junior College and Location of High School of Graduation	Number	Per Cent
Centralia			Lower Columbia		
Total Enrollment . . .	361	100.0	Total Enrollment . . .	399	100.0
Lewis County.	212	58.7	Cowlitz County	311	77.9
City of Centralia . .	92	25.5	City of Longview . .	173	43.4
Remainder of County	120	33.2	Remainder of County	138	34.6
Contiguous Counties .	109	30.2	Contiguous Counties .	27	6.8
Other*	40	11.1	Other	61	15.3
Clark			Olympic		
Total Enrollment . . .	665	100.0	Total Enrollment . . .	778	100.0
Clark County	438	65.9	Kitsap County.	479	61.6
City of Vancouver. .	270	40.6	City of Bremerton .	286	36.8
Remainder of County	168	25.3	Remainder of County	193	24.8
Contiguous Counties .	9	1.4	Contiguous Counties .	174	22.4
Other	218	32.8	Other	125	16.1
Columbia Basin			Skagit Valley		
Total Enrollment . . .	596	100.0	Total Enrollment . . .	326	100.0
Franklin County . . .	119	20.0	Skagit County.	217	66.6
City of Pasco	95	15.9	City of Mt. Vernon .	88	27.0
Remainder of County	24	4.0	Remainder of County	129	39.6
Contiguous Counties .	413	69.3	Contiguous Counties .	60	18.4
Other	64	10.7	Other	49	15.0
Everett			Wenatchee Valley		
Total Enrollment . . .	1,225	100.0	Total Enrollment . . .	391	100.0
Snohomish County . .	546	44.6	Chelan County	183	46.8
City of Everett . . .	277	22.6	City of Wenatchee. .	134	34.3
Remainder of County	269	22.0	Remainder of County	49	12.5
Contiguous Counties .	526	42.9	Contiguous Counties .	108	27.6
Other	153	12.5	Other	100	25.6
Grays Harbor			Yakima Valley		
Total Enrollment . . .	523	100.0	Total Enrollment . . .	811	100.0
Grays Harbor County.	381	72.8	Yakima County	620	76.4
City of Aberdeen . .	197	37.7	City of Yakima . . .	297	36.6
Remainder of County	184	35.2	Remainder of County	323	39.8
Contiguous Counties .	86	16.4	Contiguous Counties .	43	5.3
Other	56	10.7	Other	148	18.2

*"Other" includes students from non-contiguous counties in Washington, from other states and from foreign countries.

of high school graduates are those in which a public junior college is located. The only exceptions, as indicated above, are King and Benton Counties. King County contributed 491 students, or four-tenths of the 1958 enrollment of Everett Junior College, and Benton County added 382 students, or over 64 per cent, to the 1958 fall enrollment of Columbia Basin College. The cities of Richland and Kennewick are located in Benton County, across the Columbia River from the City of Pasco (Franklin County), the site of Columbia Basin College. This makes the college highly accessible to high school graduates of these and other neighboring cities.

Table 9:III shows how junior college enrollment, according to high school of graduation, is distributed between the city and county in which the college is located, and contiguous and non-contiguous areas. The proportionate contribution of each county represents the sum of the percentage of enrollment from the city in which the college is located and the percentage of enrollment from the remainder of that county. Percentages for the ten cities range from about 16 for Pasco to over 43 for Longview. Only 95 students, or approximately 16 per cent of the total enrollment of Columbia Basin College, were graduates of Pasco high school, contrasting with 173 students, or more than 40 per cent of the enrollees in Lower Columbia Junior College, who had graduated from high schools in Longview.

In general, there is some correspondence between proportion of enrolled students who graduated from high schools in cities where junior colleges are located, and population size of the cities. (Table 9:III) The cities of Everett, Yakima, and Longview are exceptions to this regularity. A considerable proportion of students attending junior colleges situated in these cities graduated from high schools located in other parts of their respective counties, in contiguous counties and/or out-of-state.

LOCATION OF HIGH SCHOOL OF GRADUATION STUDENTS ENROLLED IN EACH JUNIOR COLLEGE

Centralia. It will be observed from Tables 9:I and 9:II that, of the 361 students enrolled in Centralia College, 212 (59 per cent) came from high schools located in Lewis County. There were 92 students (26 per cent) who graduated from schools in Centralia School District; 43 (12 per cent) were from Chehalis; 18 (5 per cent) from Winlock; 15 (4 per cent) from Adna; and 12 (3 per cent) from Onalaska. The other districts in Lewis County contributed relatively small proportions to the total enrollment.

Thurston County ranked second in contribution of high school graduates to Centralia College. Of the 89 students from Thurston County, 44 (12 per cent) were from Olympia School District; 18 (5 per cent) from North Thurston; 13 (4 per cent) from Tenino, and 11 students (3 per cent) from Rochester.

It is evident that, of all the counties which are contiguous to Lewis County, only Thurston contributed significantly to this institution. Table 9:III shows that 109 graduates of high schools located in contiguous counties constituted three-tenths of the enrollment of Centralia College. However, most of the students in this college (301, or about 83 per cent) were

STUDENTS ENROLLED AT CLARK COLLEGE CLASSIFIED BY DISTRICT OF HIGH SCHOOL GRADUATION: FALL TERM, 1958

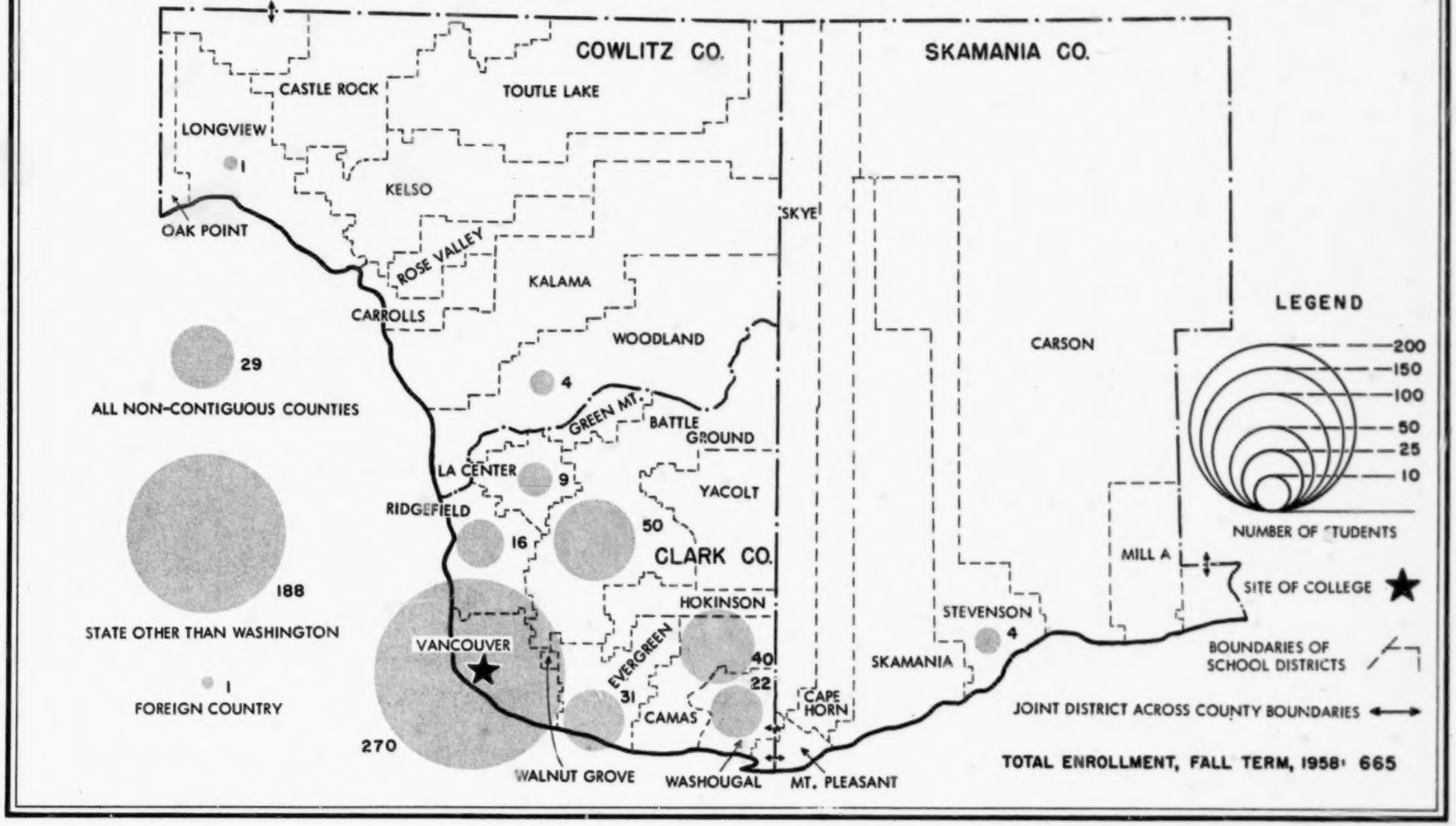
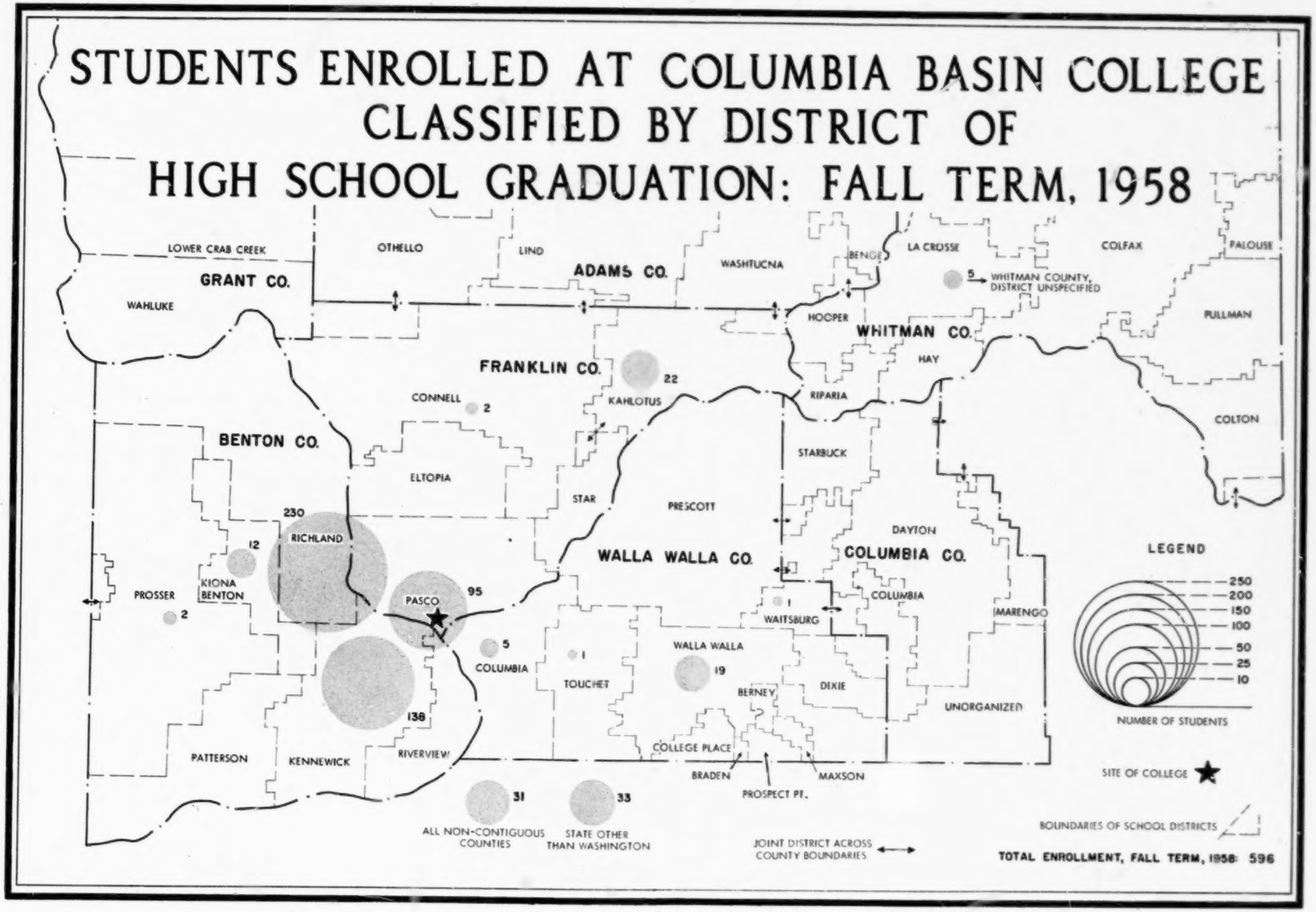

COWLITZ CO.
SKAMANIA CO.
CLARK CO.
CASTLE ROCK
TOUTLE LAKE
LONGVIEW
1
KELSO
OAK POINT
ROSE VALLEY
KALAMA
CARROLLS
WOODLAND
SKYE
CARSON
4
GREEN MT.
BATTLE GROUND
LA CENTER
9
YACOLT
RIDGEFIELD
16
50
HOKINSON
EVERGREEN
40
22
CAPE HORN
CAMAS
31
VANCOUVER
270
WALNUT GROVE
WASHOUGAL
MT. PLEASANT
SKAMANIA
STEVENSON
4
MILL A
29
ALL NON-CONTIGUOUS COUNTIES
188
STATE OTHER THAN WASHINGTON
1
FOREIGN COUNTRY
LEGEND
200
150
100
50
25
10
NUMBER OF STUDENTS
SITE OF COLLEGE
BOUNDARIES OF SCHOOL DISTRICTS
JOINT DISTRICT ACROSS COUNTY BOUNDARIES
TOTAL ENROLLMENT, FALL TERM, 1958: 665

Figure 9:1



STUDENTS ENROLLED AT COLUMBIA BASIN COLLEGE CLASSIFIED BY DISTRICT OF HIGH SCHOOL GRADUATION: FALL TERM, 1958

LOWER CRAB CREEK
GRANT CO.
WAHLUKE
OTHELLO
LIND
ADAMS CO.
WASHTUCNA
BENGE
LA CROSSE
5 WHITMAN COUNTY, DISTRICT UNSPECIFIED
COLFAX
PALOUSE
PULLMAN
HOOPER
WHITMAN CO.
HAY
COLTON
FRANKLIN CO.
22
KAHLOTUS
RIPARIA
CONNELL
2
BENTON CO.
ELTOPIA
STARBUCK
STAR
PRESCOTT
DAYTON
230
RICHLAND
12
KIONA BENTON
PROSSER
2
PASCO
95
WALLA WALLA CO.
COLUMBIA CO.
COLUMBIA
MARENGO
1
WAITSBURG
5
COLUMBIA
1
TOUCHET
WALLA WALLA
19
BERNEY
DIXIE
UNORGANIZED
138
PATTERSON
KENNEWICK
RIVERVIEW
COLLEGE PLACE
BRADEN
PROSPECT PT.
MAXSON
31
ALL NON-CONTIGUOUS COUNTIES
33
STATE OTHER THAN WASHINGTON
LEGEND
250
200
150
100
50
25
10
NUMBER OF STUDENTS
SITE OF COLLEGE ★
BOUNDARIES OF SCHOOL DISTRICTS
JOINT DISTRICT ACROSS COUNTY BOUNDARIES ↔

TOTAL ENROLLMENT, FALL TERM, 1958: 596

drawn from school districts in Lewis and Thurston Counties.

Clark. The major sources of the Clark College student body in the fall of 1958 were Clark County and out-of-state. The majority of the 665 students in this college (438, or approximately 66 per cent) came from high schools in Clark County. Of this number, 270 (41 per cent) were from Vancouver; 50 (8 per cent) were from Battle Ground; 40 (6 per cent) from Camas; 31 (5 per cent) from Evergreen; and 22 students (3 per cent) were graduates of Washougal School District. (Figure 9:1)

The 188 students from other states enrolled in Clark College accounted for over one-fourth of the enrollment. As mentioned above, most of these students were from Oregon high schools. Except for these out-of-state graduates, contiguous and non-contiguous counties contributed very little to the enrollment in Clark College.

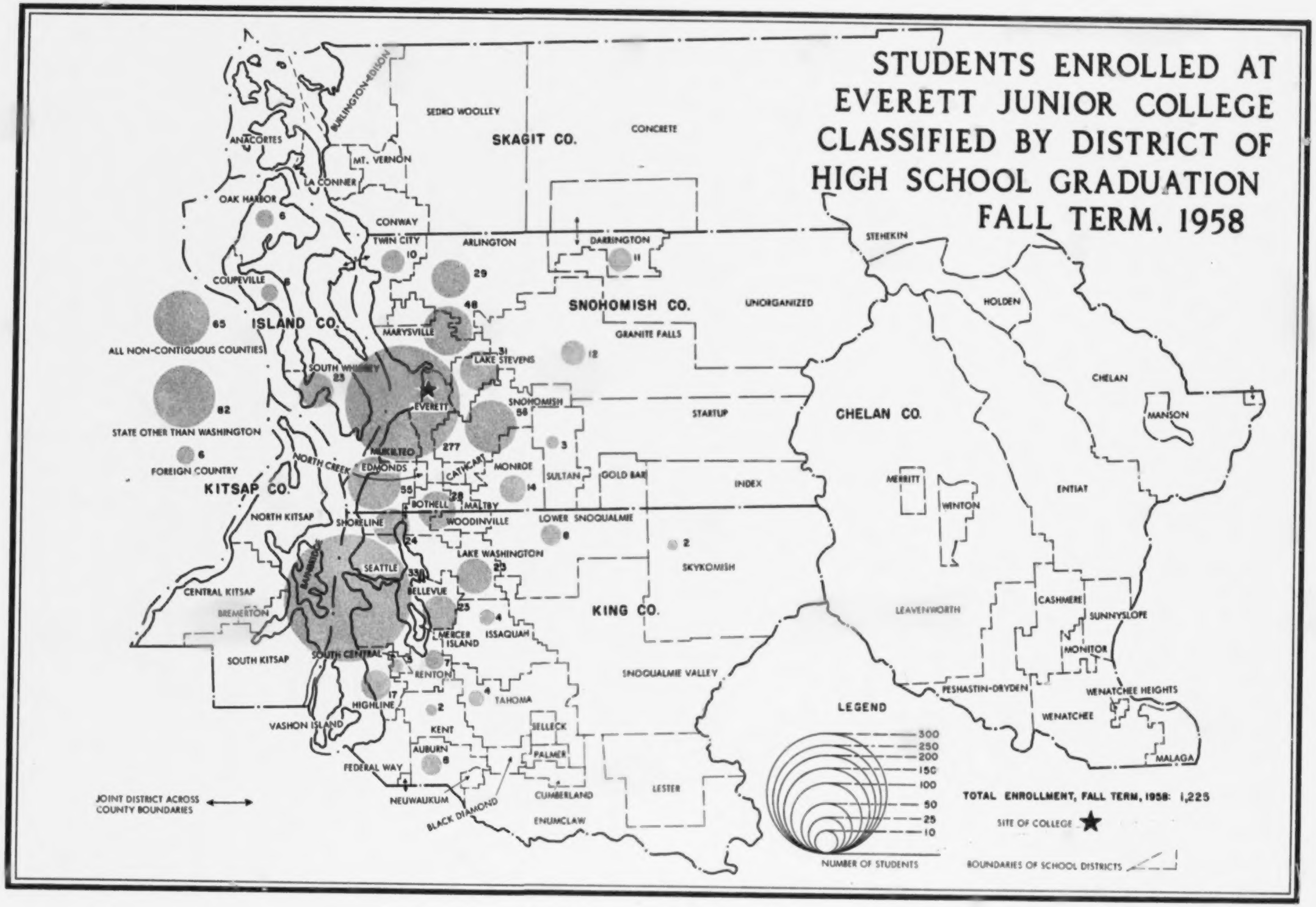
Columbia Basin. Of the 596 students enrolled at Columbia Basin College in the fall of 1958, 382, or about 64 per cent, were from Benton County. Figure 9:2 shows that 230 students (39 per cent) at Columbia Basin were from Richland School District, and 138 (23 per cent) were from Kennewick School District. Franklin County ranked second, contributing 119 of its high school graduates (20 per cent) to the total enrollment of this institution. Of this number, 95 students (16 per cent) were graduates of Pasco High School and 22 (4 per cent) were from Kahlotus School District. Benton and Franklin Counties accounted for over 84 per cent of the student body at Columbia Basin College. (Tables 9:I and 9:II and Figure 9:2)

Everett. The major sources of Everett Junior College students were high schools in Snohomish and King Counties. Of the 1,225 students enrolled, 546 (45 per cent) were drawn from Snohomish County. The 277 graduates of Everett high schools constituted only one-fifth of the total enrollment. Students from Snohomish and Edmonds school districts enrolled in this institution numbered 56 and 55, respectively. (Figure 9:3)

There were 491 graduates of King County high schools enrolled in Everett Junion College in the fall of 1958. The majority of these students, 338, or approximately 29 per cent of the total enrollment, were high school graduates from the Seattle District. Other high school districts, in both Snohomish and King Counties, contributed relatively smaller percentages to the total enrollment. These two counties, however, accounted for about 85 per cent of the student body at this institution.

Grays Harbor. It will be seen from Tables 9:I and 9:III that the major contributor to the student body of Grays Harbor College was Grays Harbor County. Graduates of high schools located in this county accounted for 381 students, or about 73 per cent of the total enrollment. In the fall of 1958, this institution drew 197 high school graduates (38 per cent) from Aberdeen School District and 100 students (19 per cent) from Hoquiam. Pacific County was second highest in its contribution of high school graduates to this institution. Students from this county amounted to 71, or about 14 per cent of the total enrollment. The majority of these, 40, or about 8 per cent of the student body at Grays Harbor College, were from Raymond School District and 21 (4 per cent) were from South Bend. High school graduates from Grays Harbor and Pacific Counties constituted over 86 per cent of the total enrollment.

Lower Columbia. As in the case of Centralia, Clark and Grays Harbor junior col-



STUDENTS ENROLLED AT
EVERETT JUNIOR COLLEGE
CLASSIFIED BY DISTRICT OF
HIGH SCHOOL GRADUATION
FALL TERM, 1958

SKAGIT CO.
SEDRO WOOLLEY
CONCRETE
BURLINGTON-EDISON
ANACORTES
MT. VERNON
LA CONNER
OAK HARBOR
6
CONWAY
TWIN CITY
10
ARLINGTON
29
DARRINGTON
11
COUPEVILLE
6
ISLAND CO.
65
ALL NON-CONTIGUOUS COUNTIES
48
MARYSVILLE
SNOHOMISH CO.
UNORGANIZED
GRANITE FALLS
31
LAKE STEVENS
12
SOUTH WHIDBEY
23
EVERETT
82
STATE OTHER THAN WASHINGTON
SNOHOMISH
56
STARTUP
277
3
6
FOREIGN COUNTRY
MUKILTEO
NORTH CREEK
EDMONDS
CATHCART
MONROE
SULTAN
GOLD BAR
INDEX
KITSAP CO.
55
14
28
BOTHELL
MALTBY
NORTH KITSAP
SHORELINE
WOODINVILLE
LOWER SNOQUALMIE
8
24
2
LAKE WASHINGTON
BAINBRIDGE
SEATTLE
330
23
SKYKOMISH
BELLEVUE
CENTRAL KITSAP
25
4
KING CO.
BREMERTON
MERCER ISLAND
ISSAQUAH
SOUTH KITSAP
SOUTH CENTRAL
5
7
RENTON
SNOQUALMIE VALLEY
17
4
TAHOMA
HIGHLINE
2
VASHON ISLAND
KENT
SELLECK
AUBURN
8
PALMER
FEDERAL WAY
LESTER
NEUWAUKUM
CUMBERLAND
BLACK DIAMOND
ENUMCLAW
JOINT DISTRICT ACROSS COUNTY BOUNDARIES
STEHEKIN
HOLDEN
CHELAN
MANSON
CHELAN CO.
MERRITT
WINTON
ENTIAT
LEAVENWORTH
CASHMERE
SUNNYSLOPE
MONITOR
PESHASTIN-DRYDEN
WENATCHEE HEIGHTS
WENATCHEE
MALAGA
LEGEND
300
250
200
150
100
50
25
10
NUMBER OF STUDENTS
TOTAL ENROLLMENT, FALL TERM, 1958: 1,225
SITE OF COLLEGE ★
BOUNDARIES OF SCHOOL DISTRICTS

leges, the majority of the 399 students enrolled in Lower Columbia Junior College (311, or 78 per cent) were graduates of high schools in the county in which the college is located. Of the 311 students from Cowlitz County, 173 students, or about 43 per cent of the total enrollment came from Longview School District; 93 (23 per cent) from Kelso; 18 (5 per cent) from Castle Rock; and 13 (3 per cent) from Kalama District. Table 9:III shows that graduates of high schools in contiguous counties amounted to only 27, or approximately 7 per cent of the total enrollment. Non-contiguous counties contributed 19 students, whereas high school graduates from out-of-state amounted to 42, or over one-tenth of the enrollment. Of these 42 students, 18 were graduates of Oregon high schools.

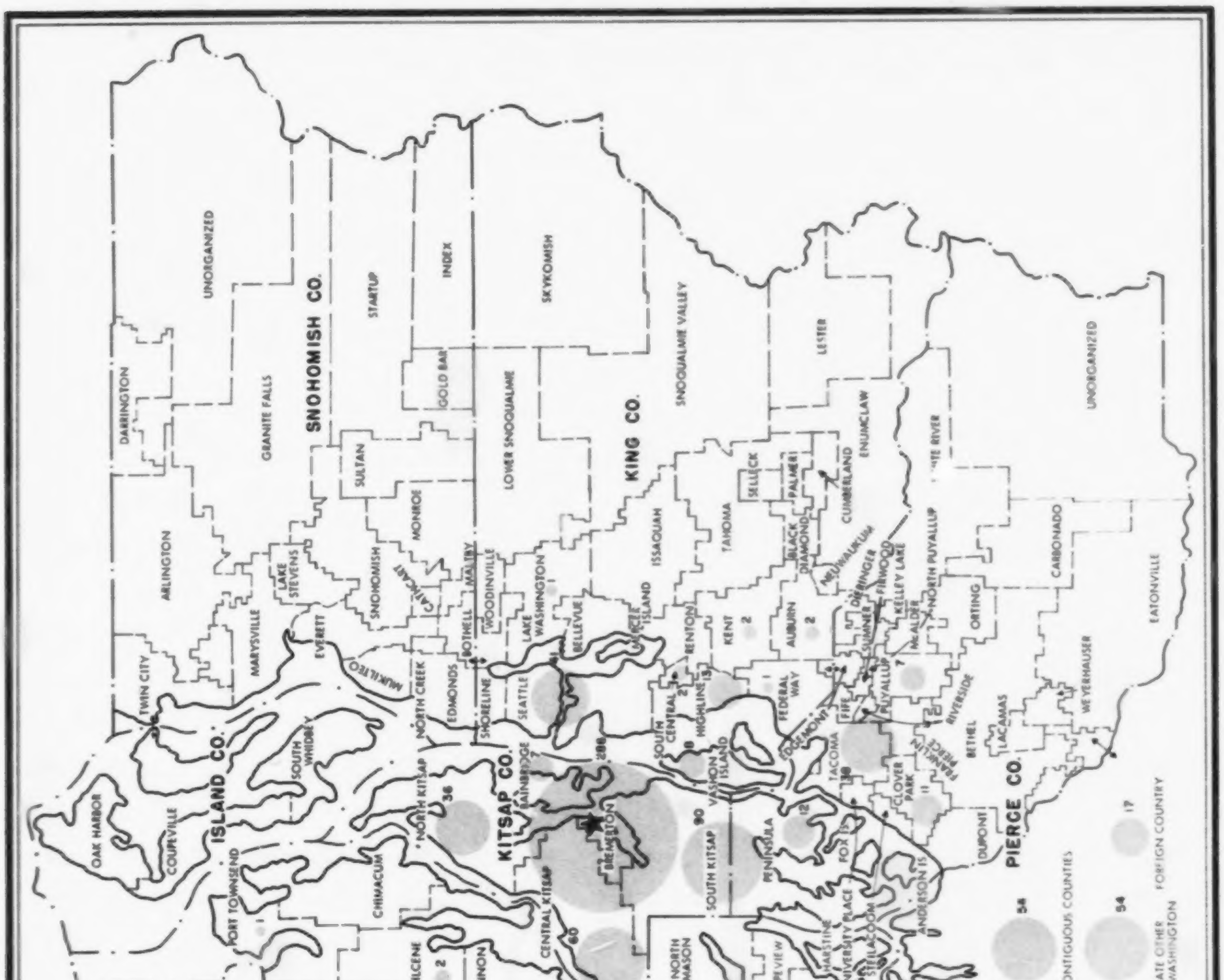
Olympic. The major source of the Olympic College student body in 1958 was Kitsap County. Of the 778 students enrolled, 479, or approximately 62 per cent, were drawn from this county. About 37 per cent of the total enrollment (286 students) came from Bremerton School District; 90 students (12 per cent) from South Kitsap; 60 (8 per cent) from Central Kitsap; and 36 (5 per cent) from North Kitsap School District.

King and Pierce Counties contributed smaller proportions to the student body at Olympic College. Of the 72 students from King County, 41 (5 per cent) were graduates of Seattle high schools, and 13 (2 per cent) were from Highline School District. Graduates of high schools in Pierce County amounted to 68, or about 9 per cent of the total enrollment. There were 38 (5 per cent) who were graduates of Tacoma high schools and 11 (1 per cent) were from Clover Park School District. (Figure 9:4) Non-contiguous counties and other states contributed equally to the student body of Olympic College with 54 high school graduates from each, constituting about 7 per cent of the total enrollment, respectively. Kitsap, King and Pierce Counties accounted for four-fifths of the enrollment in Olympic College. (Table 9:II)

Skagit Valley. Of the 326 students enrolled at Skagit Valley College in the fall of 1958, two-thirds (217) were drawn from Skagit County. There were 88, or 27 per cent of the total enrollment, who were graduates of Mr. Vernon High School; 41 (13 per cent) from Anacortes; 35 (11 per cent) from Sedro Wolley; 28 (9 per cent) from Burlington-Edison; 14 (4 per cent) from Concrete; and 11 students (3 per cent) from La Conner School District. The remainder of the student body were drawn in relatively small numbers from: (a) contiguous counties, 60 students, or about 18 per cent of the total enrollment; (b) non-contiguous counties, 23 (7 per cent); and (c) out-of-state, 24, or over 7 per cent.

Wenatchee Valley. It will be seen from Tables 9:I and 9:II that the major contributors to the Wenatchee Valley College student body were high schools in Chelan and Douglas Counties. From these two counties, there were 183 and 45 high school graduates, respectively; Okanogan County accounted for 34, or approximately 9 per cent of the total enrollment; Grant County, 31 (8 per cent); and King County, 24 (6 per cent).

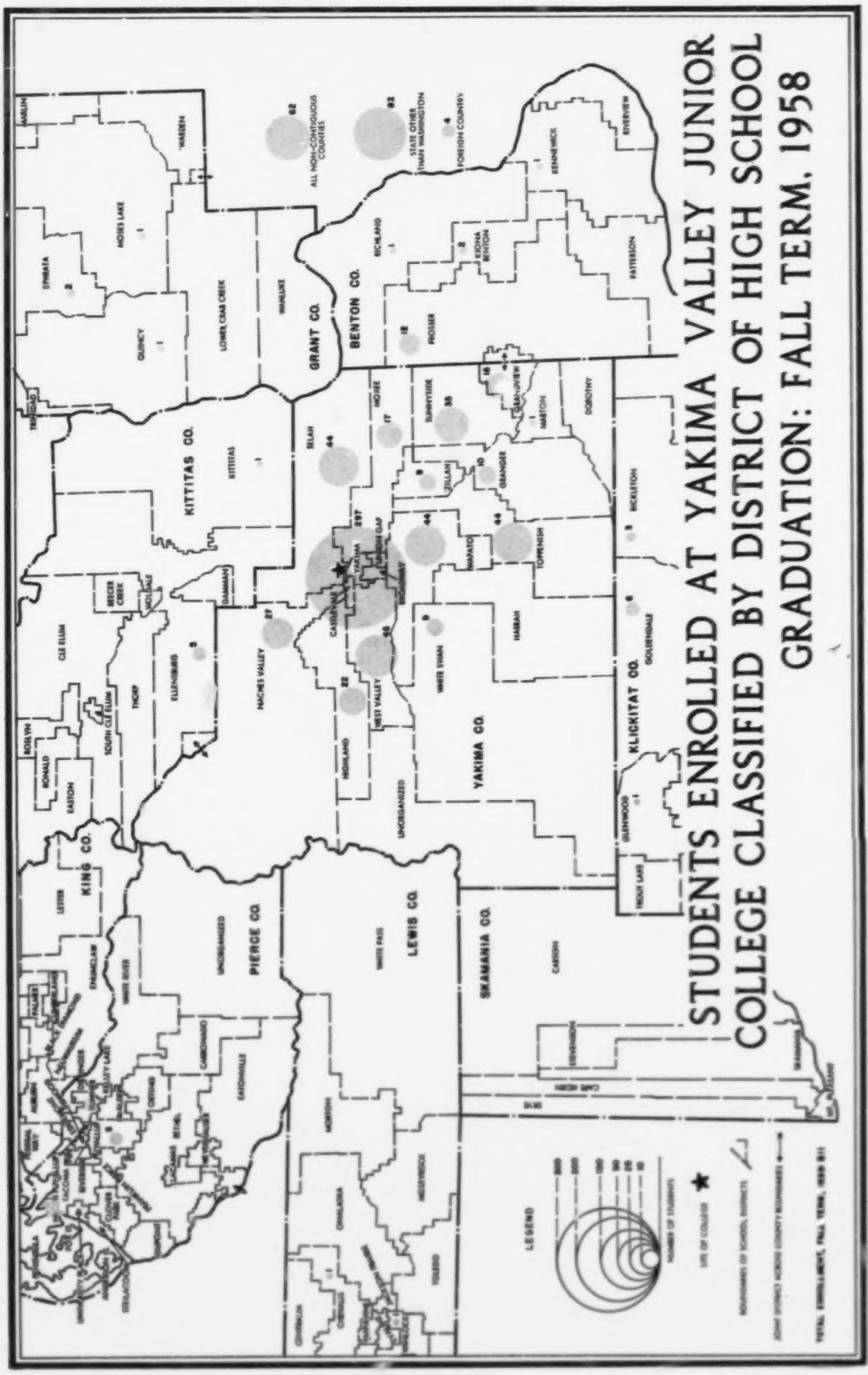
Relatively large proportions of the students attending Wenatchee Valley College (134, or over 34 per cent) were graduates of Wenatchee School District; 31 (8 per cent) were from high school in Eastmont (Douglas County) and 19 students (5 per cent) were from Cashmere District. The other districts in Chelan County contributed relatively smaller numbers to the enrollment with a total of 30, or about 8 per cent. Furthermore, non-contiguous coun-



STUDENTS ENROLLED AT OLYMPIC COLLEGE CLASSIFIED BY DISTRICT OF HIGH SCHOOL GRADUATION

FALL TERM, 1958

LEGEND
250
200
150
100
50
25
10
NUMBER OF STUDENTS
SITE OF COLLEGE ★
BOUNDARIES OF SCHOOL DISTRICTS
JOINT DISTRICT ACROSS COUNTY BOUNDARIES
TOTAL ENROLLMENT, FALL TERM, 1958: 778
SNOHOMISH CO.
ISLAND CO.
KING CO.
KITSAP CO.
JEFFERSON CO.
MASON CO.
PIERCE CO.
OAK HARBOR
COUPEVILLE
DARRINGTON
ARLINGTON
UNORGANIZED
GRANITE FALLS
MARYSVILLE
TWIN CITY
LAKE STEVENS
EVERETT
MUKILTEO
SNOHOMISH
SULTAN
MONROE
STARTUP
INDEX
GOLD BAR
SKYKOMISH
LOWER SNOQUALMIE
SNOQUALMIE VALLEY
EDMONDS
NORTH CREEK
SOUTH WHIDBY
BOTHELL
MALTBY
WOODINVILLE
SHORELINE
SEATTLE
LAKE WASHINGTON
BELLEVUE
MERCER ISLAND
ISSAQUAH
RENTON
KENT
AUBURN
TAHOMA
LESTER
SELLECK
PALMER
BLACK DIAMOND
CUMBERLAND
ENUMCLAW
HIGHLINE
SOUTH CENTRAL
FEDERAL WAY
VASHON ISLAND
PORT TOWNSEND
CHIMACUM
QUILCENE
BRINNON
NORTH KITSAP
BAINBRIDGE
CENTRAL KITSAP
BREMERTON
SOUTH KITSAP
PENINSULA
NORTH MASON
GRAPEVIEW
HARSTINE
UNION
PIONEER
TAHUYA
HOOD CANAL
SKOKOMISH
LOWER SKOKOMISH
SHELTON
MT. PK. KNIGHT
KALMECHE VALLEY
TACOMA
FIFE
PUYALLUP
SUMNER
DIERINGER
FIRWOOD
KELLEY LAKE
NORTH PUYALLUP
McALDER
ORTING
WHITE RIVER
CARBONADO
EATONVILLE
WEYERHAUSER
BETHEL
LACAMAS
RIVERSIDE
FRANKLIN PIERCE
CLOVER PARK
DUPONT
UNIVERSITY PLACE
STEILACOOM
ANDERSON IS.
FOX IS.
CLEARWATER
286
90
60
36
31
12
54
54
17
2
2
ALL NON-CONTIGUOUS COUNTIES
STATE OTHER THAN WASHINGTON
FOREIGN COUNTRY


KING CO.
PIERCE CO.
LEWIS CO.
SKAMANIA CO.
KITTITAS CO.
GRANT CO.
BENTON CO.
YAKIMA CO.
KLICKITAT CO.
ALL NON-CONTIGUOUS COUNTIES
STATE OTHER THAN WASHINGTON
FOREIGN COUNTRY
LEGEND
NUMBER OF STUDENTS
SITE OF COLLEGE

STUDENTS ENROLLED AT YAKIMA VALLEY JUNIOR COLLEGE CLASSIFIED BY DISTRICT OF HIGH SCHOOL GRADUATION: FALL TERM, 1958

Figure 9:5

ties accounted for 78 students — one-fifth of the total enrollment of Wenatchee College, and there were 17 students (4 per cent) from out-of-state.

Yakima Valley. Over three-fourths (620) of the 811 students enrolled in Yakima Valley Junior College were from Yakima County. Figure 9:5, which portrays the origin of students attending this college, indicates that 297, or approximately 37 per cent, were from Yakima City high schools and 45 (6 per cent) were from West Valley School District. Selah, Wapato and Toppenish districts each contributed 44 students (5 per cent) to the total enrollment, respectively. Other contributing districts were Sunnyside with 35 (4 per cent); Naches Valley with 27 (3 per cent); Highland with 22 (3 per cent); Moxee with 17 (2 per cent); and Grandview with 16 (2 per cent). The other high school districts in Yakima County accounted for 28 (3 per cent) of the total students enrolled at Yakima Valley Junior College.

The contribution of contiguous counties to the enrollment at Yakima Valley Junior College was relatively small, amounting to 43, or about 5 per cent of the total. However, high school graduates from out-of-state totalled 82 (10 per cent), while 62 (8 per cent) came from non-contiguous counties.

SUMMARY

The preceding discussion clearly indicates that enrollments in the ten junior colleges show similar patterns. First, the proportion of foreign students (.6 per cent) in the Washington junior college system is very small. Second, about one-tenth (576) of the total junior college enrollment graduated from out-of-state high schools. A large proportion of these were Clark College students who graduated from high schools in nearby Oregon. Third, only two counties (Benton and King), contiguous to counties in which the junior colleges are located, contributed significantly to these institutions. Except for these two counties, most of the students are drawn from the county in which the junior college is located. Fourth, data presented in this chapter support the assertion that the junior college is an institution serving mainly the educational needs of local areas.

CHAPTER 10

TRENDS IN HIGHER EDUCATION

There are 27 institutions of higher learning in the state of Washington. Publicly-supported institutions include the University of Washington, Washington State University, three colleges of education and 10 junior colleges. In addition there are 12 privately-supported colleges and universities.

The institutions of higher learning in the state of Washington are:

A. Publicly-controlled four-year, degree-granting colleges and universities

University of Washington, Seattle
Washington State University, Pullman
Central Washington College of Education, Ellensburg
Eastern Washington College of Education, Cheney
Western Washington College of Education, Bellingham

B. Privately-controlled four-year, degree-granting colleges and universities

Gonzaga University, Spokane
Holy Names College, Spokane
Northwest Bible College, Houghton
Pacific Lutheran College, Parkland
St. Edward's and St. Thomas' Seminaries, Kenmore
St. Martin's College, Lacey
Seattle Pacific College, Seattle
Seattle University, Seattle
University of Puget Sound, Tacoma
Walla Walla College, College Place
Whitman College, Walla Walla
Whitworth College, Spokane

C. Publicly-controlled junior colleges

Centralia College, Centralia
Clark College, Vancouver
Columbia Basin College, Pasco
Everett Junior College, Everett
Grays Harbor College, Aberdeen
Lower Columbia Junior College, Longview
Olympic College, Bremerton
Skagit Valley College, Mount Vernon
Wenatchee Valley College, Wenatchee
Yakima Valley Junior College, Yakima

Twelve of the 27 colleges and universities are located in the Puget Sound region, the most populous area of the state. Five of these institutions are in or near Seattle, the largest city in the state. Two are located in Tacoma, the third largest city. Eleven colleges and universities are located in eastern Washington. Four of these institutions are situated in or near the city of Spokane, the second largest city in the state.

COMPARATIVE ENROLLMENTS

One of the most serious problems in studying college enrollments is the incompleteness and unreliability of basic statistics. This is true not only for the state of Washington, but also for the country at large. The limitations and inadequacies in original enrollment data are inevitably reflected in any type of comparison or analysis that might be made.

The most usable of available college and university enrollment statistics are based on the relatively loose and indefinite concept "regular resident student." Some institutions use the term "full-time resident student." Furthermore, the definitions of both regular resident student and full-time resident student, especially in terms of credit-hours, are not always uniform from one institution to another.

Unfortunately, most college and university enrollment statistics are much less precise and meaningful. In fact, frequently no attempt is made to differentiate between full-time and part-time students, between on-campus and extension-center students, or between day and night students. All registrants are lumped together and counted without distinction as to specific and comparable units.

In an attempt to develop more reliable, comparable and meaningful enrollment statistics for institutions of higher learning in the state of Washington, the senior author a few years ago formulated three relatively rigorous definitions of "student," including subcategories.

The referent for the *first* concept is the individual student taking course work for credit; student in this category may be either full-time or part-time. The referent for the *second* concept is a full-time student-equivalent index derived from the total of registered student credit-hours. The referent for the *third* concept is the individual student taking course work without credit; students in this category may be registered either in non-credit courses or for no credit in credit courses.

At this stage, in order to keep the reporting procedures relatively simple, only three basic categories have been used. In the future, additional categories should be included. The present concepts and definitions are to be considered tentative and subject to revision.

The full-time subcategory includes individual students who are registered for 12 or more credit-hours. The part-time subcategory includes students who are registered for less than 12 credit-hours. The concept of full-time student-equivalent credit-load index is not based on individuals *per se*, but rather is an index derived from the total number of registered student credit-hours divided by the constant 15. The concept of the individual student who does not receive course credit is based on the individual person. Registrants subsumed under this definition, although enrolled in courses, receive no credit. These persons are registered either (a) in non-credit courses of (b) for no credit in credit courses.[1]

"Full-time" Students. In the 27 colleges and universities in the state of Washington, 42,833 full-time students were reported for the Fall term of 1959. (Figure 10:1) The Uni-

---

[1] For a more detailed discussion of concepts and definitions of "student," see Calvin F. Schmid and D. Peter Mazur, *Enrollment Statistics, Colleges and Universities, State of Washington, Fall Term: 1959*, Washington State Census Board, Seattle, 1960.

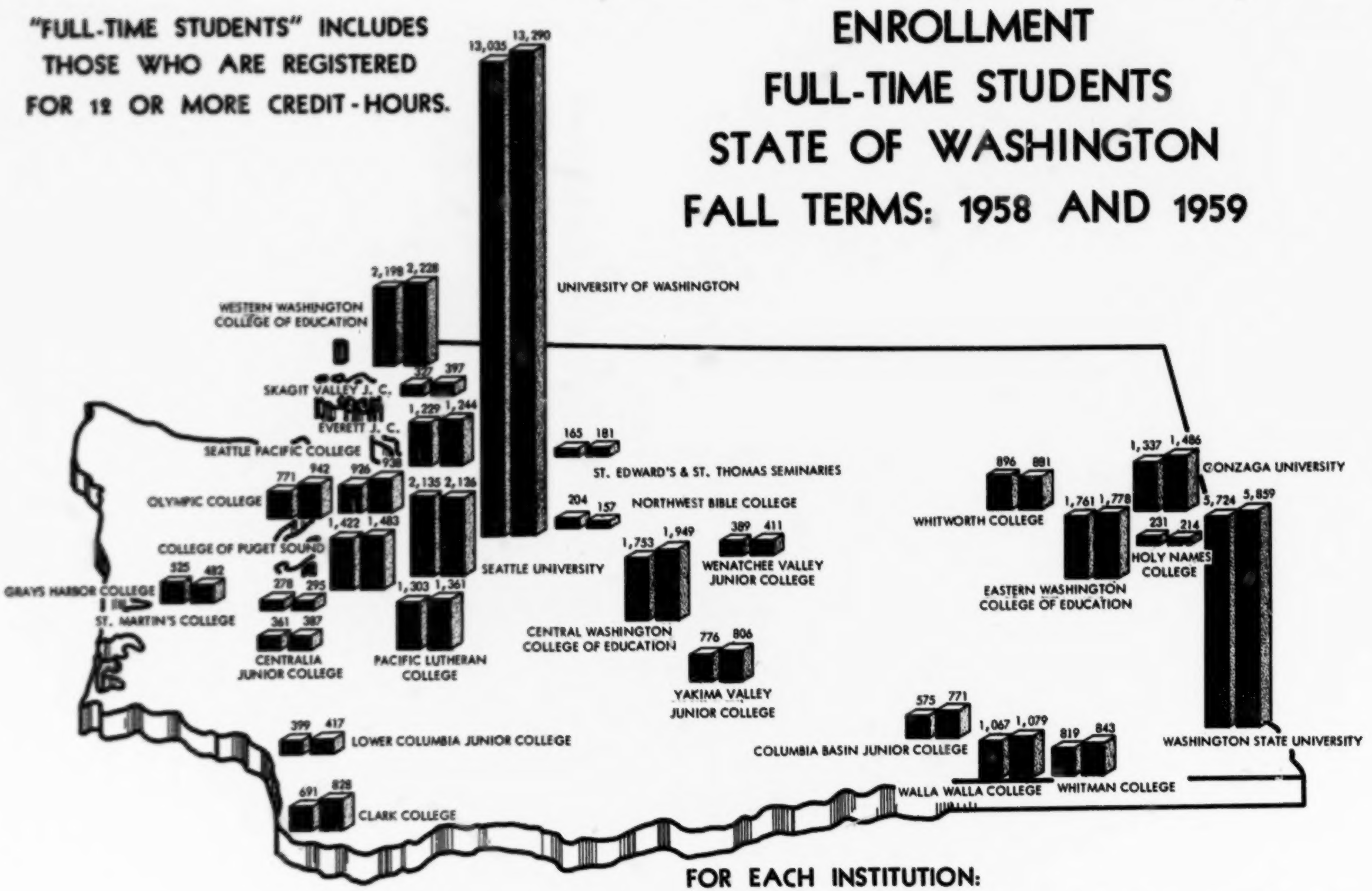

"FULL-TIME STUDENTS" INCLUDES
THOSE WHO ARE REGISTERED
FOR 12 OR MORE CREDIT-HOURS.
ENROLLMENT
FULL-TIME STUDENTS
STATE OF WASHINGTON
FALL TERMS: 1958 AND 1959
13,035 13,290
UNIVERSITY OF WASHINGTON
2,198 2,228
WESTERN WASHINGTON COLLEGE OF EDUCATION
327 397
SKAGIT VALLEY J. C.
1,229 1,244
EVERETT J. C.
SEATTLE PACIFIC COLLEGE
926 938
771 942
OLYMPIC COLLEGE
2,135 2,126
SEATTLE UNIVERSITY
1,422 1,483
COLLEGE OF PUGET SOUND
325 482
GRAYS HARBOR COLLEGE
278 295
ST. MARTIN'S COLLEGE
361 387
CENTRALIA JUNIOR COLLEGE
1,303 1,361
PACIFIC LUTHERAN COLLEGE
165 181
ST. EDWARD'S & ST. THOMAS SEMINARIES
204 157
NORTHWEST BIBLE COLLEGE
1,753 1,949
CENTRAL WASHINGTON COLLEGE OF EDUCATION
389 411
WENATCHEE VALLEY JUNIOR COLLEGE
776 806
YAKIMA VALLEY JUNIOR COLLEGE
399 417
LOWER COLUMBIA JUNIOR COLLEGE
691 828
CLARK COLLEGE
575 771
COLUMBIA BASIN JUNIOR COLLEGE
1,067 1,079
WALLA WALLA COLLEGE
819 843
WHITMAN COLLEGE
896 881
WHITWORTH COLLEGE
1,761 1,778
EASTERN WASHINGTON COLLEGE OF EDUCATION
1,337 1,486
GONZAGA UNIVERSITY
231 214
HOLY NAMES COLLEGE
3,724 5,859
WASHINGTON STATE UNIVERSITY
FOR EACH INSTITUTION:
LEFT COLUMN REPRESENTS 1958, RIGHT COLUMN, 1959.

Figure 10:1

versity of Washington, with 13,290 full-time students, or 31.0 per cent of the total enrollment of full-time students in the state, ranked first in size. Washington State University ranked second with 5,858 students, or 13.7 per cent of the total. The three state colleges of education — Western, Central and Eastern — had a combined total of 5,955 full-time students, or 13.9 per cent of the 42,833 students enrolled in all institutions in the state. The 10 junior colleges had a combined full-time enrollment of 6,685, or 15.6 per cent of the state total.

Privately-controlled institutions of higher learning reported 11,044 full-time students registered in the 1959 Fall term, representing 25.8 per cent of the total state enrollment.

Seattle University, with 2,126 full-time students in the Fall term of 1959, is the largest of the private colleges and universities. Among all institutions in the state, it ranked fourth in enrollment. Gonzaga University, with 1,486 full-time students, is second in size among the privately-controlled colleges and universities; University of Puget Sound[2] with 1,483 is third; Pacific Lutheran College (1,361) fourth; Walla Walla College (1,079) fifth; Seattle Pacific College (983) sixth; Whitworth College (881) seventh; and Whitman (843) eighth. The four remaining privately-controlled institutions — Northwest Bible College, St. Martin's College, Holy Names College, and St. Edward's and St. Thomas' Seminaries (combined) — have enrollments ranging from 295 to 157.

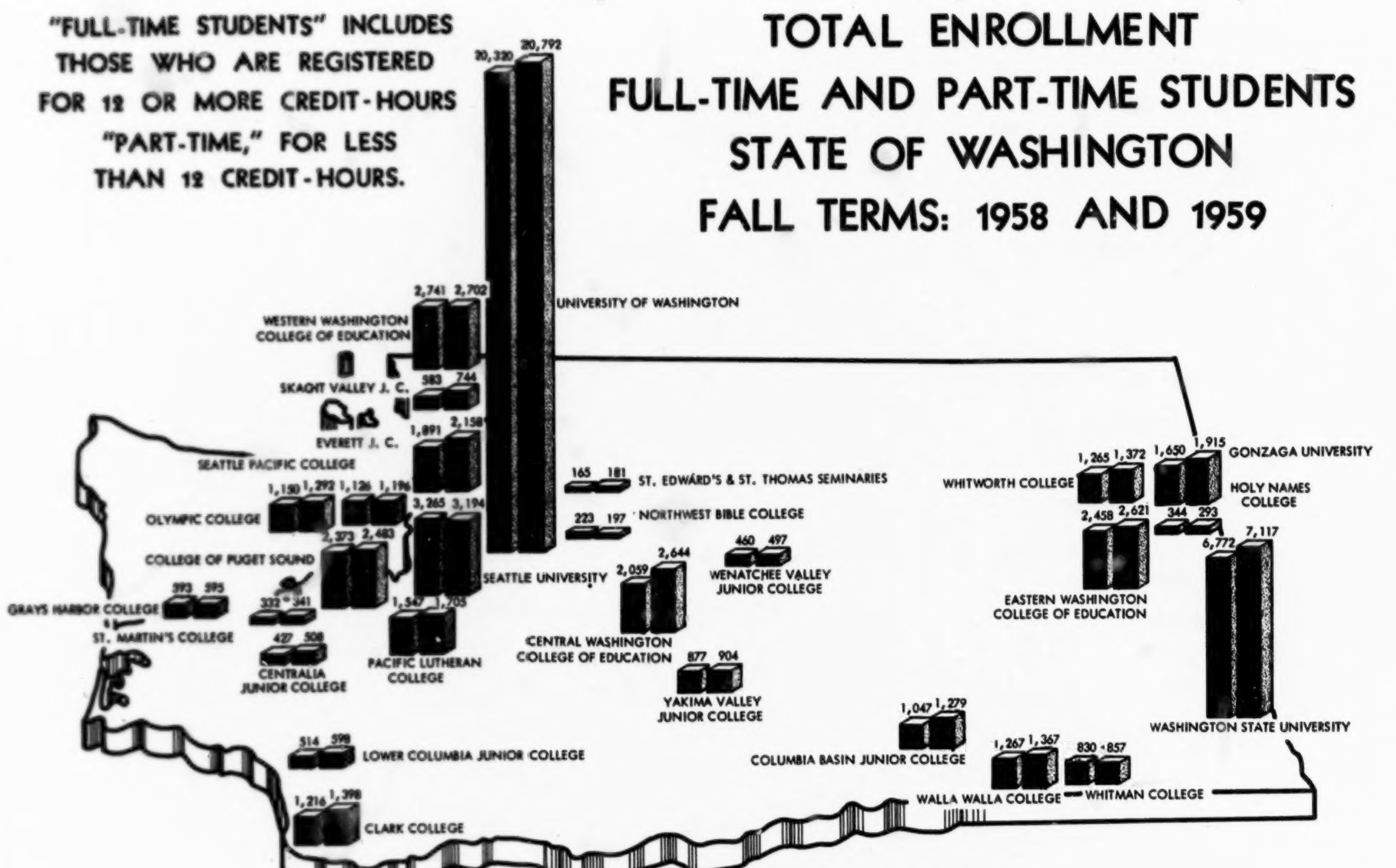
"Part-time" Students. In addition to the 42,833 full-time students in the state of Washington in the Fall term of 1959, there were 18,117 part-time students, making a grand total of 60,950 students. (Figure 10:2) Of the 18,117 part-time students, 7,502 (41.4 per cent) were registered at the University of Washington. Washington State University with 1,258, or 6.9 per cent of the total enrollment, ranked second; Seattle University with 1,068 part-time students was third highest; University of Puget Sound (1,000) fourth; Everett Junior College (914) fifth; Eastern Washington College of Education (843) sixth; Central Washington College of Education (695) seventh; Clark College (570) eighth; Columbia Basin College (508) ninth; and Whitworth College (491) tenth. Among the remaining 17 institutions, there were five that had part-time enrollments in excess of 300 students, and five had between 100 and 300 part-time students. St. Edward's and St. Thomas' Seminaries reported no part-time students, while Whitman College, Northwest Bible College, St. Martin's College, Holy Names College, Yakima Valley Junior College and Wenatchee Valley College had enrollments ranging between 14 and 98 part-time students.

"Full-time Student-equivalent" Index. In the Fall term of 1959 there were 53,178 students, as determined by the full-time student-equivalent index, compared to 42,833 full-time students, registered for 12 or more credit-hours.

The University of Washington had 17,618 students in 1959, according to the full-time student-equivalent index. This was 31.1 per cent of the state total. Washington State University had 6,816 (12.8 per cent), and the three colleges of education, combined, had 7,088 or 13.3 per cent of the total. The ten junior colleges had 8,431 (15.9 per cent), and the twelve privately-supported colleges and universities had 13,225, or 24.9 per cent of the total enroll-

---

[2] On January 1, 1960, the name of the College of Puget Sound was changed to the University of Puget Sound.



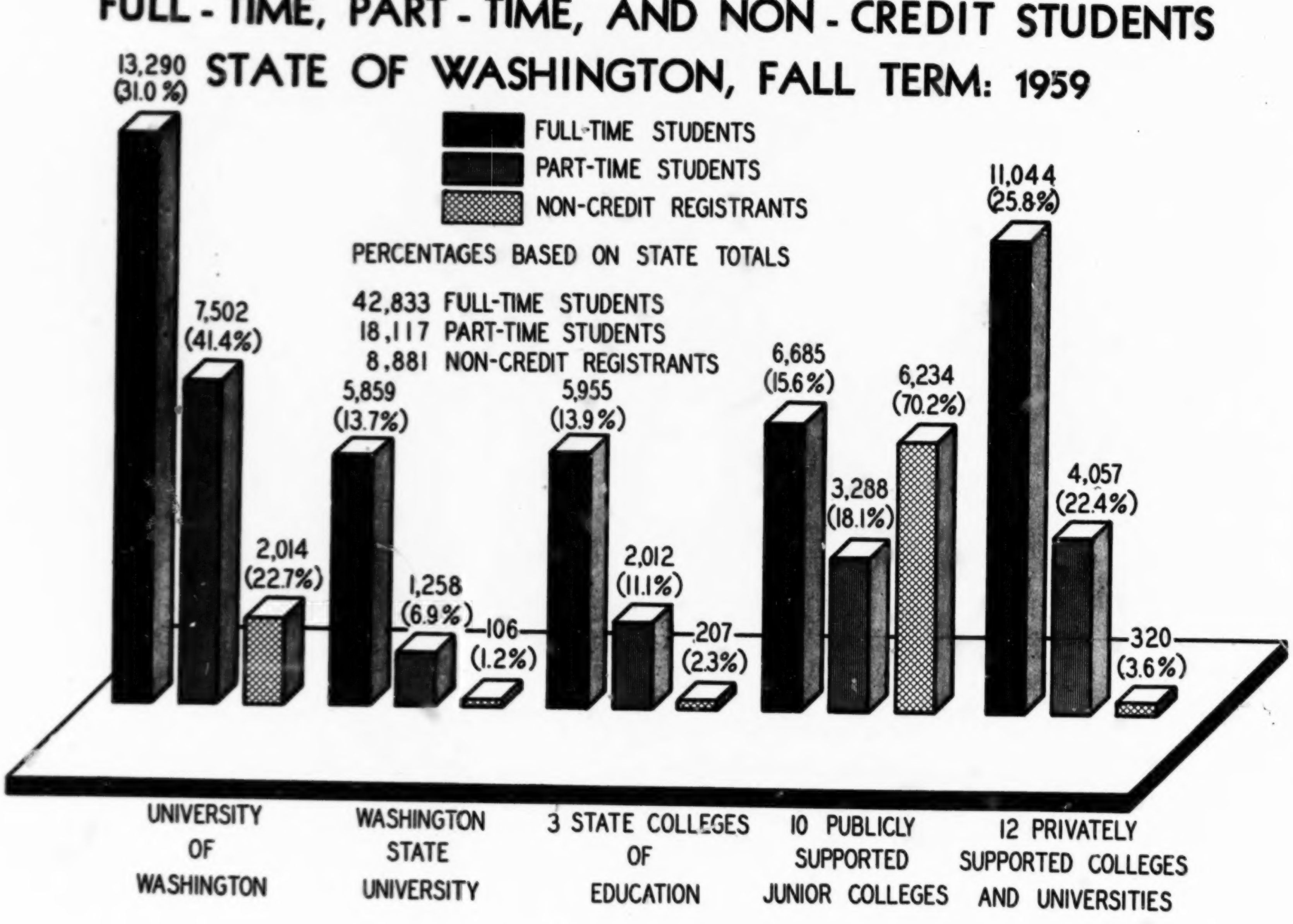
TOTAL ENROLLMENT
FULL-TIME AND PART-TIME STUDENTS
STATE OF WASHINGTON
FALL TERMS: 1958 AND 1959

"FULL-TIME STUDENTS" INCLUDES THOSE WHO ARE REGISTERED FOR 12 OR MORE CREDIT-HOURS "PART-TIME," FOR LESS THAN 12 CREDIT-HOURS.

FOR EACH INSTITUTION:

LEFT COLUMN REPRESENTS 1958, RIGHT COLUMN, 1959.

Figure 10:2



FULL - TIME, PART - TIME, AND NON - CREDIT STUDENTS
STATE OF WASHINGTON, FALL TERM: 1959
■ FULL-TIME STUDENTS
■ PART-TIME STUDENTS
▨ NON-CREDIT REGISTRANTS
PERCENTAGES BASED ON STATE TOTALS
42,833 FULL-TIME STUDENTS
18,117 PART-TIME STUDENTS
8,881 NON-CREDIT REGISTRANTS
13,290 (31.0 %)
7,502 (41.4%)
2,014 (22.7%)
5,859 (13.7%)
1,258 (6.9 %)
106 (1.2%)
5,955 (13.9 %)
2,012 (11.1%)
207 (2.3%)
6,685 (15.6 %)
3,288 (18.1%)
6,234 (70.2%)
11,044 (25.8%)
4,057 (22.4%)
320 (3.6%)
UNIVERSITY OF WASHINGTON
WASHINGTON STATE UNIVERSITY
3 STATE COLLEGES OF EDUCATION
10 PUBLICLY SUPPORTED JUNIOR COLLEGES
12 PRIVATELY SUPPORTED COLLEGES AND UNIVERSITIES

Figure 10.

ment, based on the full-time student-equivalent index.

Registrants Receiving No Credit. In the Fall term of 1959 there were 8,881 persons registered in institutions of higher learning who received no course credit. Most of these registrants were in adult education and vocational courses. The overwhelming proportion of registrants in this category is enrolled in publicly-supported institutions. The University of Washington ranks first with 2,014 such registrants. Only 320 (3.6 per cent) are enrolled in privately-supported colleges and universities. The ten publicly-supported junior colleges, with separate enrollments in this category ranging from 1,231 (Olympic) to 131 (Centralia), had a combined registration of 6,234 individuals taking courses for no credit. (Figure 10:3)

Most of the non-credit registrants are in courses not of college grade or creditable toward a degree, and should not be referred to as college students.[3]

HISTORICAL TRENDS IN ENROLLMENT

It is impossible to trace in precise detail historical trends in enrollment for the institutions of higher learning in the state of Washington. This is due largely to the fact that the definitions and procedures utilized in recording enrollment data by the various colleges and universities have differed from one institution to another. In discussing historical trends, the enrollment statistics used are based primarily on information obtained directly from the institutions themselves. As a consequence of the inadequacies and inaccuracies in the basic data, the present discussion possesses certain limitations. Nevertheless, the data are sufficiently reliable to provide a clear and meaningful picture of the general patterns and trends in college and university enrollment over a period of several decades.

Enrollment in the institutions of higher learning in the state of Washington increased from approximately 8,000 in 1920 to about 50,000 in 1959. In 1920, the University of Washington had a registration of 5,191 and Washington State University had 1,679 students. At that time the combined enrollment for the three colleges of education was less than 500 and for private institutions, around 900. There were no junior colleges in 1920.

There were two periods when college and university enrollment showed either relatively little growth or actually declined. During the depression years from 1928 to 1933 there was little, if any, growth. The total state enrollment in 1928 was 14,980 and 14,888 in 1933. Enrollments showed a marked decline during World War II. In 1939, there were 22,858 students enrolled in all institutions of higher learning in the state of Washington, but by 1943 the number had dropped to 10,889. (Figure 10:4)

The highest pre-war enrollment at the University of Washington was 10,905 in 1938, and at Washington State University, 4,034 in 1940. The highest pre-war enrollment at the three colleges of education was 2,620 in 1939, and at the private colleges and universities, 4,635 — also in 1939. The highest pre-war enrollment at junior colleges was 957 in 1940.

The years immediately following World War II represented a period of very rapid

---

[3] For additional data on college and university enrollments in the state of Washington, see Calvin F. Schmid and D. Peter Mazur, op. cit., passim.

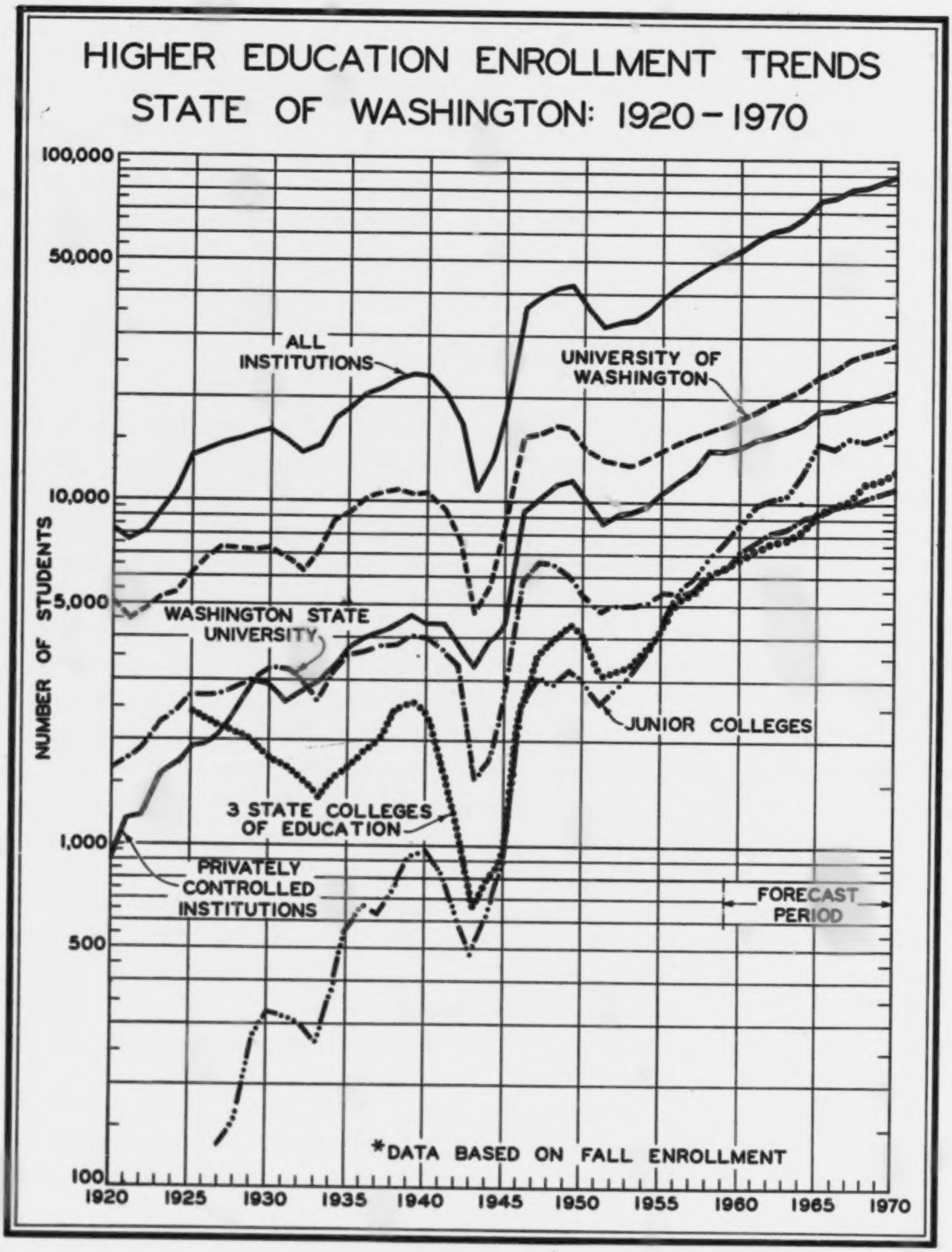

HIGHER EDUCATION ENROLLMENT TRENDS
STATE OF WASHINGTON: 1920 - 1970
NUMBER OF STUDENTS
100,000
50,000
10,000
5,000
1,000
500
100
1920
1925
1930
1935
1940
1945
1950
1955
1960
1965
1970
ALL INSTITUTIONS
UNIVERSITY OF WASHINGTON
WASHINGTON STATE UNIVERSITY
JUNIOR COLLEGES
3 STATE COLLEGES OF EDUCATION
PRIVATELY CONTROLLED INSTITUTIONS
FORECAST PERIOD
*DATA BASED ON FALL ENROLLMENT

Figure 10:4

growth. In 1949, there were 41,709 college students in the state, an increase of 30,820 in the six-year span from 1943. The University of Washington had 16,650 students in 1948 and Washington State University reached its first post-war peak in 1947 with 6,764 students. The combined enrollments of the three colleges of education reached a post-war peak of 4,499 students in 1949. Private colleges and universities and junior colleges also recorded post-war enrollment highs in 1949, with 11,419 and 3,247 students, respectively.

After 1949, when the first wave of veterans graduated and the Korean conflict began, college enrollments decreased. A total of 41,709 students were enrolled in 1949, but this number dropped to 32,635 in 1951. Since 1951, however, enrollment has been increasing each year, and the 1959 enrollment is the highest in the history of the state.

FUTURE TRENDS IN ENROLLMENT

In establishing an empirical basis for discussing future enrollments, it is important to emphasize that forecasts are extensions of trends and not predictions of any particular year's enrollment. Random fluctuations and temporary conditions will tend to result in actual enrollments varying about the forecast trends and exact agreement between forecasts and actual data is not to be expected.

Furthermore, as pointed out in Chapter 4, such basic demographic factors as fertility and net inmigration may have a far-reaching influence on enrollment changes. For example, the vanguard of the children born at the beginning of the period of a rising birth rate are now in high school, while behind them in ever-increasing numbers are children who were born a few years later. The stream of children now entering high school will increase to flood proportions in the 1960's. The impact of phenomenally high enrollments in the high schools soon will be felt in colleges and universities. The students who will crowd the campuses in the 1960's and 1970's are already born. In the state of Washington, there were 164 college and university students in 1950 for every 100 in 1940. By 1970, the ratio will increase to about 440. The anticipated upsurge in college and university enrollments is not an ephemeral problem -- any more than the enrollment crisis in our elementary and high schools. The number of children born is still continuing at a very high level, thus the problem of high enrollments will continue aunabated.

The 18-24 age-group represents the major reservoir of college and university students. Children born during the early years of the "baby boom" in the 1940's have moved into the 18-24 age-group and will mount in ever-increasing numbers to a high level by 1965 and subsequent years.

In the middle 1950's, in the country as a whole, persons of college-age represented the smallest number in 25 years. The college-age group was made up of persons born during the depression years, when birth rates were at an all-time low. In spite of the relatively small reservoir of population in the 18-24 age-group, college and university enrollments throughout the nation increased. This fact indicates that a larger proportion of the population is attending institutions of higher learning. This trend is likely to continue in the future.

The population in the 18-24 age-group in the state of Washington was 185,701 in 1930; 211,204 in 1940 and 244,784 in 1950. By 1965, there will be approximately 350,000 in this age-group in the state and close to 450,000 by 1970.

In 1910, there were 4,297 college students in the state of Washington, representing 2.6 per cent of the population 18 to 24 years of age. By 1920, this percentage increased to 5.4; by 1930 to 8.4; by 1940 to 11.0; and by 1950 to 15.6. If the proportion of the population between 18 and 24 years of age attending institutions of higher learning increases to 19.0 or 20.0 per cent by 1970, there will be around 90,000 college students in the state.

The extraordinarily high enrollments occurring during the immediate post-war period have been surpassed in the state as a whole as well as in certain institutions. It is estimated that from 1959 to 1970, especially after 1964, enrollments in institutions of higher learning in the state will increase year by year at an accelerated rate. (Figure 10:4)

By 1970, the University of Washington could have as many as 30,000 students and Washington State University more than 12,000. It is estimated that combined enrollments for the colleges of education will exceed 12,000 by 1970. Western Washington College of Education should reach an enrollment of around 4,500; Central, 4,000; and Eastern, approximately the same number. It is also probable that junior college enrollment will exceed 17,000 by 1970, and enrollment in private colleges could surpass 21,000. However, the lack of comparable and detailed data for junior colleges and private colleges has imposed serious limitations on the reliability of enrollment forecasts for these institutions.[4]

ENROLLMENT TRENDS BY CLASS

Because of the insufficiency of data, it is not possible to derive forecasts of enrollment by class for all institutions of higher learning in the state. In this section we will deal primarily with the five major tax-supported institutions.

Not only will the University of Washington and Washington State University record unprecedented increases in total enrollments by 1965 and subsequent years, but the structure of the student body with respect to numbers and proportions in the various classes will undergo marked changes. Proportionately greater increases in the number of upper division and graduate students will take place. In 1920, for example, 40.1 per cent of the student body at the University of Washington was in the freshman class, whereas by 1959, only 29.0 per cent were freshmen. On the other hand, in the same period of time, the proportion of students in the Graduate School has risen from 3.0 per cent to 17.5 per cent. Furthermore, the proportion of students in the professional schools of Medicine, Dentistry and Law comprises an additional 4.6 per cent at the present time.

These trends possess particular significance for the future, both from the point of view of educational policy and of cost. Currently, the University of Washington has almost 3,000 graduate students. This represents one of the largest enrollments of graduate students in the western part of the United States. At Washington State University, the proportion of students in the Graduate School increased from 1.0 per cent in 1920 to 7.8 per cent in 1959. There were 499 graduate students at Washington State University in the fall of 1959.

---

[4] For a more detailed discussion of enrollment forecasts in the state of Washington, see Calvin F. Schmid and Vincent A. Miller, Enrollment Forecasts, State of Washington: 1957 to 1965, Washington State Census Board, Seattle, 1957, passim.

Increased numbers and proportions of students are enrolled in the junior and senior levels at the University of Washington and at Washington State University. In graduate and other specialized training, as well as upper division education, both the University of Washington and Washington State University are pre-eminent, and will be called upon in an ever-increasing degree to assume responsibility for this phase of higher education in the state.

Colleges of Education. In the three state colleges of education, the freshman class characteristically shows the highest registration. There were 2,780 freshmen out of a total of 6,423 students registered in these colleges in the fall of 1959. By 1970, this number should increase to about 5,500 in a total of approximately 12,000 students.

Between the freshman and sophomore years there seems to be a very high mortality rate. In 1959, for example, the sophomore class was slightly less than one-half as large as the 1958 freshman class. In 1958, the freshman class consisted of 2,578 students. The proportion of the decline between the first and second years due to "drop-outs" and proportion due to "transfers" are difficult to determine. It should be pointed out that Washington State University has a similar freshman-sophomore mortality rate. The University of Washington has by far the lowest rate among the five major tax-supported institutions.

On the other hand, at the three colleges of education, the enrollment level of the junior class is very high with 1,244 for 1959, as compared to a sophomore class of 1,203 in 1958. In addition, there were 991 seniors and 131 graduates in the Fall term of 1959. The relatively high enrollments in the junior and senior years in the three colleges of education are apparently due mainly to transfers from junior colleges. By 1970, forecasts indicate a combined enrollment of approximately 2,100 seniors and 500 graduate students.

The proportion of freshmen has remained relatively constant, with 46.0 per cent in 1935 and a slightly smaller percentage (43.2) in 1959. The proportion of sophomores has shown a tendency to decline. In 1935, sophomores comprised about 28.0 per cent of the total enrollment. Since that date there has been an irregular decline to 20.0 per cent in 1959. Both juniors and seniors have manifested a tendency to increase. Approximately 25.0 per cent of the combined enrollment of the three colleges of education were juniors and seniors in 1935, and by 1959, there had been an increase to 34.8 per cent.

ENROLLMENT BY RESIDENCE

An important factor in analyzing enrollment trends and forecasts is the out-of-state student. During the 1920-30 decade the number of nonresident students at the University of Washington ranged from 487 in 1921 to 1,242 in 1927, representing, respectively, 10.6 per cent and 16.9 per cent of the student body. In the following ten-year period, the maximal registration of nonresidents occurred in the Fall term of 1940; the figure was 992, or 9.3 per cent of the total enrollment. The largest number of nonresidents for any single fall term in the history of the University was recorded in 1957 with 2,293, or 15.8 per cent of the total enrollment. Each year since 1954, there have been close to 2,000 nonresident students enrolled at the University of Washington. In 1959, there were 2,280, or 14.2 per cent nonresidents. This fact is particularly significant, since this high level was maintained in spite of the establishment of more rigorous entrance requirements for nonresident undergraduates.

The general trend in the number of nonresident students since 1946 has been upward, and probably will continue to increase during the next ten years. The increase in number of nonresidents at the University of Washington is largely a reflection of the growing importance of its professional and graduate schools.

The number of nonresident students at Washington State University shows a marked increase from 1920 to 1940 and also during the immediate post-war period. Since 1950, there has been a levelling tendency.

The number of nonresident students at Washington State University during the four-year period 1920-1924 varied between 169 and 175. During this period, the nonresident component averaged 9.5 per cent. The highest pre-war figure was 651 in 1940, which represented 16.1 per cent of the total student population. The all-time peak in nonresident enrollment for Washington State University was reached in 1949 with 1,135 students, or 18.4 per cent of the total enrollment. In 1959, there were 746 (11.7 per cent) nonresidents.

So far as the future is concerned, the nonresident enrollment component will continue to be of considerable importance at both the University of Washington and Washington State University. With an ever-increasing volume of young people desiring a college education, it is possible that more stringent barriers will be established against out-of-state students, particularly in the form of higher tuition and academic standards. Moreover, it is conceivable that nonresident students might be excluded entirely, if the University of Washington and Washington State University do not have the staff and facilities to accommodate resident students. Assuming that no drastic administrative policies of this type are instituted, the nonresident component should average around 12.0 per cent for the University of Washington and approximately 9.0 per cent for Washington State University.

Like these two universities, nonresident students at the three colleges of education are an important element in total enrollment. In the Fall term of 1959, for the three colleges combined, 7.4 per cent of the students were from outside of the state of Washington. Individually, Western had 7.2 per cent, Central 5.3 per cent and Eastern 9.8 per cent.

IMPACT OF CHANGING ADMINISTRATIVE POLICIES ON ENROLLMENT FORECASTS

The increased enrollments in recent years, as well as the extraordinary upsurge that is anticipated in the 1960's, have caused much concern among college administrators. The gigantic task of educating additional thousands of young people is burdened with serious and far-reaching problems. Additional buildings for classrooms, laboratories, offices and dormitories will be required; more equipment will be needed; teaching staffs must be greatly enlarged; large sums of money will have to be raised to pay for needed capital expansion as well as for greatly increased operating costs.

There is the constant danger of debasing the quality of education, or of establishing wholesale, ill-advised restrictive measures to reduce enrollments so that the financial burden of the impending enrollment crisis might be lessened.

In order to retain standards of scholarship and at the same time keep enrollments within manageable proportions, more selective requirements of admission have been instituted recently by many publicly- as well as privately-supported institutions of higher learning.[5]

In 1956, both the University of Washington and Washington State University raised admission standards for nonresident undergraduate students. The new requirements apparently exerted some influence on the size of enrollments. For example, in the fall of 1956, only 537 nonresidents registered at Washington State University, compared to 853 in the fall of 1955. Also, it is likely that admission policies of the University and Washington State University affected 1956 fall enrollments at the three colleges of education, as well as other institutions.

Beginning Autumn Quarter, 1961, eligibility for admission to the University of Washington will depend on a student's having completed a college preparatory course with a grade-point average of 2.50 in all courses completed after September, 1960. This will be uniform for all colleges of the University. Nonresidents who are eligible to enter the University of their own state and have completed a college preparatory course with a cumulative grade-point average of 3.00 or above are eligible for admission to the University of Washington.

Administrative policies tend to influence the volume of enrollment, so that forecasts prepared prior to major policy revisions could be greatly altered. Under these conditions, enrollment forecasts must be evaluated, adjusted and utilized with great care.

SUMMARY

Generally, it is anticipated that colleges and universities in the state of Washington will experience unprecedented increases in enrollment beginning in 1965. By 1970, there could be 90,000 or even 100,000 college students in the state of Washington. Two dominant factors account for this trend. First of all, there will be an extraordinary increase in the college-age population. Secondly, a growing proportion of young people is attending colleges and universities. By 1970, there will be around 450,000 in the 18-24 age category, and, considering past trends, it is not unreasonable to expect that between 25 and 30 per cent of this group will attend college.

Graduate and professional schools and colleges, especially at the University of Washington and Washington State University, are playing an increasingly important role in higher education in the Northwest Region. Also, junior and senior levels at both of these institutions contain increased numbers and proportions of the college enrollment.

---

[5] In the state of California, for example, all of the four-year, tax-supported institutions require a B average of all high school graduates for admission. If their grades are not sufficiently high for admission to a degree-granting institution, high school graduates may be admitted to one of the many junior colleges. Later on, if the quality of their work is satisfactory, they may transfer to one of the four-year institutions.

As enrollments mount, the three colleges of education and the junior colleges will play a much more significant part in higher education in the state. Privately-supported colleges and universities will continue to occupy a very strategic position in higher education, although, in general, not increasing in enrollment as rapidly as tax-supported institutions.

#31039